DOCUMENT RESUME

ED 094 679 HE 005 806

AUTHOR Curry, Denis J.; Donovan, Carl C.
TITLE 1970-1971 Instructional Expenditures Per Student: Washington Public Institutions of Higher Education. Final Report.
INSTITUTION Washington State Council on Higher Education, Olympia.
PUB DATE May 72
NOTE 75p.

EDRS PRICE MF-$0.75 HC-$4.20 PLUS POSTAGE
DESCRIPTORS College Students; Costs; *Educational Finance; *Expenditure Per Student; *Higher Education; *Instruction; *Instructional Programs; State Colleges; State Universities
IDENTIFIERS *Washington

ABSTRACT

This report covers the per student expenditures related to instruction for the 1970-71 academic year by Washington institutions of higher education. A summary of findings indicate: (1) In the 4-year institutions, instructional costs per student increased sharply as the level of instruction increased from the lower division to the graduate levels. (2) In the community colleges, the per student expenditures for faculty in the vocational area was 1.2 times greater than for academic courses. (3) The total average per student expenditures for the universities and state colleges increased $87 and $86, respectively, over 1969-70. Community college expenditures reflected a 6.7 percent decrease ($46). (4) Significant differences in instructional costs between major discipline groupings were determined. In the 4-year institutions, the discipline groups with the highest average unit costs were the health sciences, agriculture and natural resources disciplines, professional programs, and fine arts. The groups with the lowest unit costs were the social sciences, business, and humanities. (5) The amount of average state support per full-time student in 1970-71 ranged from $754 for a lower division transfer student at a community college to $3,310 for a university graduate student. (6) In terms of student fees available for general institutional use and exclusive of the health sciences, resident students bore from 5 to 16 percent of their average instructionally related cost at the various instructional levels in 1970-71. (Author/MJM)

ED 094679

Council on Higher Education
State of Washington

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRO
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIGIN
ATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRE
SENT OFFICIAL NATIONAL INSTITUTE OF
EDUCATION POSITION OR POLICY

BEST COPY AVAILABLE

1970-1971 Instructional Expenditures Per Student

Washington Public Institutions of Higher Education

May, 1972

HE 000 704

COUNCIL ON HIGHER EDUCATION
1972

Richard P. Wollenberg, Chairman
Marion E. Wilson, Vice-Chairman

Citizen Members

Richard Albrecht
Seattle

Mrs. David Gaiser
Spokane

Walter B. Williams
Seattle

J. Scott Barron
Bellingham

Carlton Lewis
Tacoma

Marion E. Wilson
Spokane

Goodwin Chase
Tacoma

Mrs. Tad Wada
Seattle

Richard P. Wollenberg
Longview

Educational Members

Dr. James E. Brooks, President
Central Washington State College

Dr. Melvin Lindbloom, President
Green River Community College

Dr. David McKenna, President
Seattle Pacific College

Dr. Emerson Shuck, President
Eastern Washington State College

Mr. John Mundt, Director
State Board for Community College Education

Dr. Charles J. Flora, President
Western Washington State College

Dr. Charles J. McCann, President
The Evergreen State College

Dr. Charles E. Odegaard, President
University of Washington

Dr. Glenn Terrell, President
Washington State University

The Very Rev. Richard Twohy, S.J.
President, Gonzaga University

Legislative Members

Senator Gordon Sandison

Representative Richard L. Smythe

Senator George W. Scott

Representative James McDermott

Executive Members

Richard Hemstad, Legal Assistant
Office of the Governor

John McCurry, Director
Office of Program Planning and Fiscal Management

Staff

James M. Furman
Executive Coordinator

Dr. William Chance
Deputy Coordinator for Planning and Research

E. Anne Winchester
Deputy Coordinator for Student Activity Information and Special Studies

Daniel G. Youra
Educational Planner

Denis J. Curry
Deputy Coordinator for Information Systems

Stephen J. Blair
Administrative Officer

Carl C. Donovan
Educational Planner

ED 094679

FINAL REPORT

1970-1971 INSTRUCTIONAL EXPENDITURES PER STUDENT

WASHINGTON PUBLIC INSTITUTIONS OF HIGHER EDUCATION

May, 1972

Project Officers:

Denis J. Curry
Deputy Coordinator for Information Systems

Carl C. Donovan
Educational Planner

1970-1971 INSTRUCTIONAL EXPENDITURES PER STUDENT
WASHINGTON PUBLIC INSTITUTIONS OF HIGHER EDUCATION

This is the final report covering the per student expenditures related to instruction for the 1970-71 academic year by Washington institutions of higher education. A preliminary report on this subject was prepared under the date November 30, 1971 which was presented to the Legislative Budget Committee in December and made available to the 1972 Special Session of the Legislature.

This report reflects updated information for several institutions and contains additional tables not included in the preliminary report. These tables provide comparisons with the 1969-70 Council study of this subject; a more detailed treatment of high cost programs; an estimate of the degree of state support by level of instruction; and tables which provide data reconciling to total expenditure levels, by program and by fund.

The community college summary data have been modified through the inclusion of the 1970-71 estimated state contribution to the Teachers Retirement Fund on behalf of community college faculty. This allows for greater comparability with the 1969-70 study and with the four year institutions.

Those persons holding copies of the preliminary report are urged to either discard their copies or to note that the report has been superceded by the May, 1972 final report.

TABLE OF CONTENTS

	Page
SUMMARY OF FINDINGS	1
Background and Legislative Resolutions	4
Conduct of the Study	5
Calculation of Unit and Program Costs	6
Interpretation of the Data	7
FINDINGS: PER STUDENT EXPENDITURES	9
Faculty Salaries and Benefits Per FTE Student	10
Instructional Expenditures Per FTE Student	12
Instructional and Related Expenditures Per FTE Student	14
Unit Cost Comparisons	17
Agriculture and Natural Resources, Professional and Health Science Programs	20
Per Student Expenditures--All Discipline Areas	22
Impact of Federal Sponsored Program Support	24
Support of Instruction--The State and the Student	26
SUMMARY OF TOTAL 1970-71 PROGRAM EXPENDITURES	30
Distribution of Institutional Expenditures By Major Function	30
Sources of Funding For Instructionally Related Activities	32
Institutional Expenditures by Program by Function by Fund	34
APPENDIX I: Comparison of Per Student Expenditures by Discipline	41
APPENDIX II: Members of the Ad Hoc Committee on Program and Unit Costs	51
APPENDIX III: Forms Used in Collection of Data	53
APPENDIX IV: Definitions of Discipline Groupings	57
APPENDIX V: Procedures for Collecting, Distributing and Allocating 1970-71 Data for Unit Cost Calculations	61

1970-1971 INSTRUCTIONAL EXPENDITURES PER STUDENT
WASHINGTON PUBLIC INSTITUTIONS OF HIGHER EDUCATION

SUMMARY OF FINDINGS

1. In the four-year institutions, instructional costs per student increased sharply as the level of instruction increased from the lower division to the graduate levels. The differences are most pronounced when the cost of faculty salaries and benefits are calculated on a per student basis. As supporting costs are distributed and other related programs are allocated, the degree of difference decreased. The major reason for the cost differences is the number of students per faculty member at each instructional level.

2. In the community colleges, the per student expenditures for faculty in the vocational area was 1.2 times greater than for academic courses. The overall cost differential per student in direct vocational instruction rose to slightly under 50 percent higher than that of academic instruction, due to vocational supporting costs which were estimated to be 2.8 times greater than for academic instruction.

3. The total average per student expenditures for the universities and state colleges increased $87 and $86 respectively (percentage increases of 8.1 and 10.2 %) over 1969-70. Community college expenditures reflected a 6.7 percent decrease ($46). This is due to greater overenrollments and the absorption of the largest share of 1969-71 savings targets in the 1970-71 fiscal year. The lower division transfer areas bore the largest reduction with a decrease in per student expenditures of $90.

4. Significant differences in instructional costs between major discipline groupings were determined. In the four-year institutions, the discipline groups with the highest average unit costs were the health sciences, agriculture and natural resources disciplines, professional programs and fine arts. The groups with the lowest unit costs were the social sciences, business and humanities. In the community colleges, data processing technologies was the highest cost area and social sciences the lowest.

5. The amount of average state support per resident full-time student in 1970-71 ranged from $754 for a lower division transfer student at a community college to $3,310 for a university graduate student. In medicine and dentistry, the state support was in excess of $5,000 per student. On an overall basis, when other local revenues are included, the state general fund provides from 84.4 to 86.5 percent of total instructionally related expense at all institutions.

6. In terms of student fees available for general institutional use and exclusive of the health sciences, resident students bore from five to sixteen percent of their average instructionally-related cost at the various instructional levels in 1970-71. The proportion of total student fees to instructional cost ranged from 12 to 33 percent. Fee increases in 1971-72 are expected to raise this proportion to from 15 to 37 percent of total cost.

7. Approximately 55 percent of all nonauxiliary expenditures of the universities were found to be related to instruction. An average of 90 percent of state college expenditures and all community college costs were related to instruction. The lower figure for the universities is due to the large expenditures for sponsored research and extension services, largely supported from federal sources.

8. The unit cost amounts and the ratios, particularly between program areas, are effected by numerous variables, including enrollment shifts, financial constraints, credit hour mix and institutional policies. Both the figures and the ratios can be expected to change as each of these variables change. It is especially important that the unit cost figures not be interpreted as the costs of mounting new programs or expanding old ones since they are, instead, a reflection of the average expenditure patterns which actually existed in 1970-71.

Background and Legislative Resolutions

During the 1971 legislative session, several measures were enacted which directed that studies be undertaken concerning higher education instructional expenditures and how they vary among the different levels of instruction and among various instructional programs. House Concurrent Resolution No. 7 directed the Council on Higher Education to make findings and recommendations on "the cost differentials between the various instructional programs offered by the four-year colleges and universities and the community colleges, including, but not limited to, the differentials by level of instruction and differentials between undergraduate, graduate and professional programs."

Senate Concurrent Resolution No. 3 directed the State Board for Community College Education, in conjunction with the Office of Program Planning and Fiscal Management, the Council on Higher Education and the Legislative Budget Committee to "determine the cost of the various educational programs conducted by the individual community colleges including vocational programs."

Senate Concurrent Resolucion No. 5 directed the Legislative Budget Committee, in conjunction with the State Board for Community College Education and in cooperation with Office of Program Planning and Fiscal Management to determine "the program cost differences among Washington's community colleges and the reasons relative thereto." In addition, the Appropriations Act contained a requirement that the Legislative Budget Committee, using procedures and definitions specified by the Council on

Higher Education, determine the appropriate weighting factor for vocational-technical programs as opposed to academic transfer programs. Although this section was vetoed, Governor Evans indicated that he concurred with the need for the study and believed that the procedures established were appropriate.

These resolutions and directives of the legislature indicated a basic concern with the information it had been presented in the past. In their simplest sense they represent a desire on the part of the legislature for a greater understanding of the resource allocation process in Washington public higher education. It is the purpose of these studies not only to inform the legislature as to the situation which has existed in the past, but also to serve in identifying courses of action that may be employed in the future in the process of allocating resources to the various institutions and sectors of higher education in this state.

Conduct of the Study.

In response to the mandates of the legislature, an Ad Hoc Committee on Program and Unit Costs was established consisting of representatives of each of the agencies which had been directed to undertake studies in this area. In addition, a representative of the two-year institutions and a representative of the four-year institutions were named to serve on the committee. (Appendix II contains the names of the members of the committee.) The purpose of establishing the Ad Hoc Committee was to bring together the agencies responsible for reports dealing with unit and program costs of higher education and to provide for participation by affected institutions. In this way, it was possible to develop mutually agreed upon methods of uniformly developing and calculating costs

related to the instruction of students at various institutions at different course levels. Consistency of information and a minimum of duplication of effort were therefore assured and each agency responsible for a study mandated by the legislature has access to the same data to meet its respective responsibilities.

The committee began operation in July, 1971. At its first meeting, it was agreed that the actual operating expenditures for the 1970-71 academic year would be used as the study base for the 1971 report. It was also agreed that institutions would collect and provide the Council on Higher Education with cost and related data at a detailed level for analysis in accordance with the guidelines of the committee. (Appendix III contains copies of the agreed-upon reporting format.)

Calculation of Program and Unit Costs

In establishing the criteria under which the unit and program costs would be calculated, the Ad Hoc Committee recognized that institutions of higher education serve a variety of missions. While instruction is the primary program of service offered by all institutions, other major activities include extension, community and public service, and research. The first priority in conducting a study of instructionally related costs is to determine which program expenses are to be included under the general heading of instruction and what methods are to be used in allocating general expenditures among the various programs. Under the criteria established by the Committee, all programs whose primary purpose was extension, community and public service, or research, were eliminated from the per student cost calculations. The direct costs of summer session were also eliminated. In contrast with the cost study conducted by the Council on Higher Education covering 1969-70 costs, the

committee concluded that the net institutional costs of laboratory schools and teaching hospitals and clinics would be included as an instructionally related cost.

Following the receipt of the information from the institutions, the Ad Hoc Committee reviewed alternative methods of distributing supporting costs and other instructionally related costs within the Instruction and Departmental Research program (Program 06). The Committee, in conjunction with academic representatives of two-year and four-year institutions, also agreed on the composition of the discipline groupings to be used in the reports. These discipline groupings and their composition are outlined in Appendix IV. Figures 1 through 7 in Appendix I reflect the distribution of per student expenditures among these various groupings.

Following the aggregation of direct instructional costs among the groupings, the costs of the other program were allocated to each of the groupings at each level in accordance with the procedures agreed upon by the Ad Hoc Committee. The exact procedures are included as Appendix V.

Interpretation of the Data.

While this study in many ways reflects a more consistent and improved approach than was used for the 1969-1970 period, it would be erroneous to assume that the results have the precision of exact accounting information. In any study where distributions must be made between levels of instruction or between programs, judgments must be made as to the appropriate procedures to be employed. The level of detail of institutional accounting records also influences the degree of sophistication that can be used in making the distributions and allocations. The results of this study should therefore be regarded as reasonable approximations of "instructionally related expenditures" (as defined by the committee) which actually occurred in 1970-71. It should also be

understood that the figures do not necessarily reflect the costs of mounting or establishing these programs, nor necessarily the costs involved in expansion or contraction of programs by some "unit" amount.

Further, no assumption should be drawn that the data reflect levels which should be continued into the future. In 1970-71, most institutions accepted enrollments over their budgeted level, while at the same time they returned a portion of their general fund appropriations due to the state's financial problems. In the community colleges, for example, 11,571 additional FTE students (nearly 3000 over estimates) enrolled in Fall, 1970, as compared to 1969. Due to reduced state resources, only five million dollars in additional funds for instruction was available above the amount expended in 1969-70. This had the effect of reducing the average per student expenditure by approximately $45 for the community colleges.

Another factor related to the limitations of actual per student cost information is equipment replacement needs. The community colleges conducted a survey of all districts concerning equipment replacement needs based on an estimated eight year average useful life. As a result of this study the findings indicated that the level of funds made available for equipment replacements as part of the normal resource allocation process had created an accumulated deficiency of slightly over $1.5 million. Nearly $1.3 million of this was in the vocational-technical area. While these figures are not reflected in the actual 1970-71 expenditure level, the existence of this situation at all institutions should be taken into account in interpreting the adequacy of the unit cost levels as reported.

Many of these limitations can be overcome through improvements in the techniques of data collection and analysis. We would urge, therefore, that studies in the unit cost area continue as part of an overall effort to generate an improved system of financing higher education which accords with the objectives of the Governor and the Legislature in terms of the support for the various program offerings within the community college system and the state colleges and universities.

FINDINGS: PER STUDENT EXPENDITURES

Tables I, II, and III on the following pages present three different views of per student expenditures: Expenditures for faculty salaries and related benefits; expenditures of the Instruction and Departmental Research Program (exclusive of summer session and R.O.T.C.); and "instructionally related" expenditures which include allocated expenditures of other programs, e.g., administration, student services, etc. In these three tables, the discipline groups covering the health sciences, agriculture and natural resources and professional programs have been excluded. These groups have significantly higher unit costs and are offered primarily at the universities. They have been excluded in order to provide greater comparability among the four-year institutions. It was not possible to make identical exclusions for the community colleges.

Faculty Salaries and Benefits Per FTE Student

Table I reflects the expenditures for faculty salaries and benefits on a per student basis for each four-year institution and, in the case of the community colleges, for academic and vocational program areas. The relationship of graduate level costs to those at the lower division ranges (freshmen and sophomore) ranges from 2.9 - 1 to 3.8 - 1. Comparing graduate costs to those at the undergraduate level, one finds average per student graduate costs in a range of from 2.1 to 3.0 times greater.

The data presented on Table I for graduate costs is summary in nature and reflects masters program costs at the state colleges and combined masters and PhD costs at the universities. This is the primary reason for the higher average graduate costs at the universities.

For community colleges, the per student expenditures in vocational programs for faculty are 1.2 times greater than those in academic transfer areas. While this is higher than was indicated in the 1969-70 data provided to the Council by the State Board, it should be noted that the average expenditures per student are considerably lower in 1970-71 due to enrollment increases in excess of budgeted amounts. In this situation, the course areas with greater elasticity (the ability to absorb enrollment increases) will experience reduced per student costs while those with more fixed class sizes will remain relatively constant or incur only slight per student reductions. Typically, more academic offerings fall into the former area while vocational programs have more offerings in the latter category. Comparisons between periods should therefore take into account not only the ratios but the factors which affect those ratios. For these reasons, a thoughtful review of the use of ratios in the budgeting systems seems imperative.

TABLE I

1970-1971

INSTRUCTIONAL SALARIES AND BENEFITS PER FTE STUDENT
Excluding Agriculture and Natural Resources, Professional and Health Sciences Programs

Institution	Lower Div.	Upper Div.	Average Undergrad.	500	600+	Average Graduate	Average All Levels
U. of W.	$552	$ 954	$710	$2070	$2406	$2181	$906
W.S.U.	482	1012	648	--	--	2102	759
E.W.S.C.	541	938	715	1463	*	1466	740
C.W.S.C.	560	865	701	1740	*	1762	726
W.W.S.C.	489	841	638	1645	*	1640	669

Community Colleges	
Academic	$468
Vocational	576
Average	503

* Less than 10 FTE Students

Instructional Expenditures Per FTE Student

Table II on the following page reflects the inclusion of other supporting costs within the Instruction and Departmental Research Program. These costs include supplies, equipment, travel, contracted services, supporting staff, etc. When these expenditures are added to the cost of faculty salaries and benefits, the total equals the 1970-71 instructional expenditures.

In the case of the four-year institutions, these costs were distributed on an equal basis per FTE faculty. In the case of the two-year institutions, a survey was conducted by the community colleges in which each district distributed these costs among the various academic and vocational programs. These distributions were based, in part, upon accounting data available to the institutions. Other distribution factors were selected by each institution. It is the opinion of the Council staff that in the future such distributions, unless supported by direct accounting data, should be made on a uniform basis.

The average effect of the costs of supporting staff, supplies, equipment and supervision at the lower division level is to increase costs per student from $134 to $186. In the four-year institutions the overall average increase per student ranged from $198 to $260 per student. Supporting costs reported for vocational programs were over two and one half times as great as in the academic areas. The overall ratio of vocational to academic expenditures reported is therefore slightly under 1.48 - 1. Adjusting this ratio to a basis that is consistent with the budget definitions used for that period indicates a relationship of slightly under 1.45 - 1, vocational to academic.

TABLE II

1970-1971

TOTAL INSTRUCTIONAL* EXPENDITURES PER FTE STUDENT
Excluding Agriculture and Natural Resources, Professional and Health Sciences Programs

Institution	Lower Div.	Upper Div.	Average Undergrad.	500	600+	Average Graduate	Average All Levels
U. of W.	$722	$1203	$911	$2671	$3248	$2862	$1171
W.S.U.	634	1307	843	--	--	2886	997
E.W.S.C.	727	1237	951	2152	**	2144	991
C.W.S.C.	706	1088	883	2557	**	2588	923
W.W.S.C.	640	1092	831	2443	**	2436	881

Community Colleges

Academic	$554
Vocational	817
Average	639

*Program 06 excluding summer session and ROTC program.
**Less than 10 FTE Students

Instructional and Related Expenditures Per FTE Student

Table III, on the following page, illustrates the effect of allocating the instructionally related expenditures of other programs. Program costs included are portions of administration, student services, plant operation and maintenance, libraries, and organized activities related to instruction. The procedures and criteria for the allocation process were developed by the committee. Allocations to federally supported research activities were based upon the overhead payments made by the federal agencies distributed on the basis of where that overhead was claimed by the institution. This procedure differed from that used in 1969-70 and also had the effect of increasing the total costs related to instruction at the four-year schools. While the majority of student services costs were allocated to instruction, in the case of the four-year institutions another new procedure was adopted: the cost of institutional housing offices, dormitory head residents and assistant residents were allocated to the housing and food service program. The impact of allocating other program costs on average per student expenditures in the four-year institutions ranges from $509 to $628. In the community colleges, the average impact is $348.

A significant factor to note when comparing this table to Tables I and II is that when other related costs are included, the cost differences between the levels of instruction are reduced. In Table I the relationship between graduate and undergraduate costs was approximately three to one. In Table III it ranges from below two to one to 2.3 to 1. This is due to the fact that related costs do not appear to vary significantly by level of instruction. As allocation techniques are refined, it is likely that the variations in cost by level of instruction will increase, however.

TABLE III

1970-1971

TOTAL INSTRUCTIONAL AND RELATED EXPENDITURES* PER FTE STUDENT
Excluding Agriculture and Natural Resources, Professional and Health Sciences Programs

Institution	Lower Div.	Upper Div.	Average Undergrad.	500	600+	Average Graduate	Average All Levels
U. of W.	$1327	$1849	$1532	$3449	$4087	$3660	$1815
W.S.U.	1319	2034	1542	--	--	3751	1712
E.W.S.C.	1257	1849	1517	3117	**	3094	1570
C.W.S.C.	1248	1716	1464	3258	**	3295	1507
W.W.S.C.	1126	1624	1337	3063	**	3056	1390

Community Colleges	
Academic	$ 868
Vocational	1234
Average	986

*Program 06 plus allocations of other program costs, e.g., administration, student services, etc.

** Less than 10 FTE students

Unit Cost Comparisons

In comparing the results of the 1970-71 unit cost study with the 1969-70 study, it has been necessary to adjust the 1970 data for comparison purposes. In the 1969 study, overhead credits earned by instructional departments were not allocated to other programs but were shown as an instructional expense. In addition, the community colleges in the 1969 study used the budget definition of vocational and academic FTE students which was derived from the MIS-1 enrollment file. In the 1970-71 study, the course effort report was used as the basic source. In both cases, adjustments have been made to make the data as compatible with the 1969-70 study as possible.

Table IV below, compares the direct instructional expenditures per student for both years. This comparison does not include the agriculture and natural resources, professional and health sciences discipline groups. Nor does it include any allocations from other programs. The 1970-71 data is based on the information in Table II, as adjusted. The 1969-70 figures are from Table I of the March 9, 1971 report.

TABLE IV

COMPARISON OF 1969-70 AND 1970-71 UNIT COST STUDIES

Total Instructional Expenditures Per FTE Student
Excluding Agriculture and Natural Resources, Professional and Health Science Programs

	Lower Division	Upper Division	Total Undergrad.	Grad.	Average
Universities					
1969-1970	$690	$1290	$891	$2480	$1070
1970-1971	733	1278	932	2904	1157
State Colleges					
1969-1970	$592	$1092	$797	$2339	$ 843
1970-1971	688	1135	885	2384	929
Community College		Vocational			
1969-1970	$644	$ 771			$ 685
1970-1971	554	803			639

The total average per student expenditures for the universities and state colleges show an increase of $87 and $86 respectively (percentage increases of 8.1 and 10.2%). Community college expenditures reflect a 6.7% decrease ($46). This is due to greater overenrollments and the absorption of the largest share of 1969-71 savings targets in the 1970-71 fiscal year. As was mentioned earlier, the lower division transfer areas bore the brunt of this reduction with a decrease in per student expenditures of $90.

In making comparisons between institutions and between fiscal periods there is a tendency to often read more into unit cost figures than is appropriate. It should be remembered that these data represent a snapshot, summary view of what occured at a particular point in time. They are affected by financial constraints, changes in enrollment patterns, the mix of program offerings and the initiation of new programs.

Since unit cost figures are, however, useful in understanding the various relationships within institutions and among institutions, it is desirable to view the figures on an equalized basis insofar as possible. As was noted earlier in this report, several institutions experienced overenrollments in Fall, 1970. Others found it necessary to reduce instructional expenditures to comply with state "saving targets." Both these factors influence the cost patterns. They are also reflected in an institution's position relative to the faculty staffing formula. This formula is used to calculate faculty requirements for the four-year institutions and has been used by the executive and legislative branches as a means of equalizing instructional appropriations to the institutions.

During the 1970-71 academic year, the four-year institutions experienced staffing levels of from 76 percent to 83.5 percent of that formula. Table V reflects undergraduate, graduate and average instructional expenditures of those institutions equalized to 80 percent of formula. While internal fluctuations in formula level between undergraduate and graduate levels occurred during 1970-71, the table provides a reasonably equalized view of the per student expenditures of these institutions on this hypothetical basis. The remaining differences may be attributed to differences in salary level, support formula position and credit hour "mix" by level of instruction.

TABLE V

1970-1971

TOTAL INSTRUCTIONAL EXPENDITURES* PER FTE STUDENT
(ADJUSTED TO 80% FACULTY STAFFING FORMULA)

Institution	Undergrad.	Grad.	Average
U. of W.	960	3017	1234
W.S.U.	858	2897	1015
E.W.S.C.	911	2053	948
C.W.S.C.	929	2724	972
W.W.S.C.	874	2562	926

*Does not include Agriculture and Natural Resources, Professional, or Health Sciences discipline groups.

Agriculture and Natural Resources, Professional and Health Sciences Programs

Table VI below indicates the relationship of costs in the agriculture and natural resources, professional and health sciences disciplines. As was mentioned earlier, these areas were excluded from the earlier tables due to their higher cost patterns. This is evident when viewing the following tables. It should be noted that comparisons should only be made between programs--not between institutions--due to the differences in curricular offerings in these specialized areas.

TABLE VI
1970-1971

COMPARISON OF INSTRUCTIONAL EXPENDITURES PER FTE STUDENT (TABLE II) WITH PER STUDENT EXPENDITURES FOR AGRICULTURE AND NATURAL RESOURCES, PROFESSIONAL AND HEALTH SCIENCES* PROGRAMS

Institution	Undergraduate	Graduate	Average
U. of W.			
Ag. & N.R., Prof. & Health Sci.	$2137	$2979	$2404
All Other (Table II)	911	2862	1171
W.S.U.			
Ag. & N.R., Prof. & Health Sci.	$1722	$4914	$2019
All Other (Table II)	843	2846	997
E.W.S.C.			
Professional**	$1289	--	$1289
All Other (Table II)	951	$2144	991
C.W.S.C.			
Professional	$1034	***	$1088
All Other (Table II)	883	$2588	923
W.W.S.C.			
Professional	$1020	--	$1020
All Other (Table II)	831	$2436	881

*Excluding Medicine, Dentistry and Veterinary Medicine.
**E.W.S.C. Health Science expenditures excluded due to high per student start-up costs.
***Less than 5 FTE students.

Although all of the four-year institutions experienced higher unit costs in these specialized areas, the programs at the state colleges represent a small portion of total enrollments. At the state universities, however, these programs have an average cost two times greater than the other instructional programs and are of significant size to warrant a more detailed presentation.

Table VII below provides the average per student instructional expenditures for each of these areas plus the cost relationship to all other instructional programs for the two universities. The factors which influence higher per student costs are smaller than average class size due to specialized curricula, higher faculty salaries in some areas, specialized equipment requirements, and limited offerings at the lower division level.

TABLE VII

1970-1971

INSTRUCTIONAL EXPENDITURES PER FTE STUDENT--UW AND WSU
NATURAL RESOURCES, PROFESSIONAL AND HEALTH SCIENCES* PROGRAMS

	Natural Resources	Professional	Health Sciences*	All Other
UW				
Amount per student	$2781	$1926	$3770	$1171
Ratio to all other programs	2.4-1	1.6-1	3.2-1	
WSU				
Amount per student	$2333	$1658	$3173	$ 997
Ratio to all other programs	2.3-1	1.7-1	3.2-1	

*Excluding Medicine, Dentistry and Veterinary Medicine.

It should not be assumed from the above discussion that cost variations among discipline groups are limited to the Agriculture and Natural Resources, Professional and Health Sciences program areas. Considerable differences exist among the majority of the discipline groups at each institution and in the community colleges. The figures and tables contained in Appendix I illustrate this fact for each four-year institution and for the community colleges.

Per Student Expenditures--All Discipline Areas

In order to provide as comprehensive picture of per student expenditures related to instruction as possible. Table VIII on the following page outlines the total instructional and instructionally-related expenditures for 1970-71 including the disciplines discussed in the preceding section. Only the program areas of medicine, dentistry and veterinary medicine have been excluded due to the significantly higher costs in these areas. The direct instructional expenditures per student in veterinary medicine are $2,916. When the instructionally-related expenditures in other programs are added, the total equals $4,597 per student.

The direct instructional expenditures per student in medicine/dentistry equals $5,809. When the expenditures of other related programs such as administration, etc., are included and the net expenditures of hospitals are excluded, the expenditures per student are increased to $6,913. When all related costs are included the per student expenditures total $12,062. It should be noted, however, that these unit cost figures do not reflect any allocations to interns and residents. Equivalencies for these individuals will be developed and used in the 1971-72 report.

TABLE VIII

1970-1971

TOTAL INSTRUCTIONAL AND INSTRUCTIONALLY RELATED* EXPENDITURES PER FTE STUDENT
Excluding Medicine, Dentistry and Veterinary Medicine

Institution	Lower Div.	Upper Div.	Average Undergrad.	500	600+	Average Graduate	Average All Levels
U. of W.-Instructional	$ 801	$1448	$1093	$2562	$3637	$2902	$1395
Incl. Instructional Related	1426	2180	1766	3384	4590	3766	2100
W.S.U.-Instructional	682	1484	965	--	--	3235	1144
Incl. Instructional Related	1376	2244	1683	--	--	4145	1878
E.W.S.C.-Instructional	730	1239	954	2152	1828**	2144	993
Incl. Instructional Related	1261	1851	1521	3117	2435**	3094	1572
C.W.S.C.-Instructional	713	1092	887	2602	3290**	2638	927
Incl. Instructional Related	1256	1720	1469	3307	4076**	3350	1511
W.W.S.C.-Instructional	644	1095	835	2435	1933**	2436	883
Incl. Instructional Related	1131	1628	1341	3054	2509**	3056	1393

Community Colleges	Instructional	Including Instr. Related
Academic	$554	$ 868
Vocational	817	1234
Average	639	986

*"Instructional" equals Program 06 (Instruction and Departmental Research) less summer session and R.O.T.C. "Instructionally Related" includes, in addition, the related expenditures of other programs, e.g., administration, student services, etc.

**Less than 10 F.T.E. students

Impact of Federal Sponsored Program Support

Not all of the expenditures in support of instruction are from state and local sources. The federal government, through a variety of grants provides some indirect support. These grants include support for equipment, books, etc. and a large number of graduate fellowships. A portion of the latter grants is often made available to assist the affected instructional departments. Since these funds are normally not part of continuing support levels, they have been excluded from the earlier tables. The per student impact of these grants is shown in Table IX on the following page.

TABLE IX

1970-1971

TOTAL INSTRUCTIONAL AND RELATED EXPENDITURES* PER FTE STUDENT
ADJUSTED TO INCLUDE INSTRUCTIONAL RELATED SPONSORED PROGRAMS
Excluding Agriculture and Natural Resources, Professional and Health Sciences Programs
(See Table III for Comparable Figures Exclusive of Sponsored Programs)

Institution	Lower Div.	Upper Div.	Average Undergrad.	500	600+	Average Graduate	Average All Levels	Per Student Impact Of Spons. Prog.
U. of W.	$1327	$1949	$1570	$3719	$4370	$3910	$1881	$66
W.S.U.	1319	2188	1590	--	--	4014	1776	64
E.W.S.C.	1284	1874	1543	3142	**	3118	1596	26
C.W.S.C.	1248	1716	1464	3258	**	3295	1507	--
W.W.S.C.	1126	1699	1368	3063	**	3056	1421	21

Community Colleges							
Academic	$ 924	Vocational	$1290		Average	$1042	56

*Program 05 plus allocations of other program costs, e.g., administration, student services, etc.

**Less than 10 FTE students.

Support of Instruction--The State and The Student

Considerable interest has been expressed by legislators and the general public in the amount of state general fund support per student by the various levels of instruction. It has been possible to calculate these amounts for the universities, state colleges and community colleges in the following manner:

The per student expenditures related to instruction were derived from Table III. These amounts were reduced by the amount of the 1970-71 resident full-time fees applicable to the general operation of the institution. The estimated other income was derived from Tables XIV A through F from general local funds* applicable to instructional related activities on a per student basis less the resident fee amount. The remainder is the estimated state general fund support per FTE student by level of instruction.

In the case of the community colleges, the amount of federal vocational support per student was deducted from the general local fund and allocated entirely to the FTE vocational students. For this reason, the "other income" amount for these students is $108 higher than for academic transfer students.

Table X, on the next page, reflects the results of these calculations.

*The "General Local Fund" is a budgeted, non-treasury fund held and used by each institution for its general operations and maintenance. Its major sources of revenue are student operating fees, earnings from investments, income from sale of supplies, materials and services, miscellaneous fees and fines, etc.

TABLE X

ESTIMATED STATE GENERAL FUND EXPENDITURES
PER FULL TIME EQUIVALENT STUDENT
1970-1971

	Total Per Student Expenditures*	Less Fees**	Less Other Income	State General Fund
A. Lower Division				
Universities	1324	210	162	952
State Colleges	1200	147	68	985
Community Colleges				
-Lower Division	868	60	54	754***
-Vocational	1234	60	162	1012***
-Average	986	60	89	837***
B. Upper Division				
Universities	1904	210	162	1532
State Colleges	1717	147	68	1502
C. Graduate				
Universities	3682	[illegible]	162	3310
State Colleges	3128	147	68	2913

*Excluding Agriculture and Natural Resources, Professional and Health Sciences Disciplines (Derived from Table III)

**Portion of resident fees applicable to Operation and Maintenance in 1970-71

***Includes Teachers Retirement. Direct appropriations equal $733, $986, and $815 respectively.

As Table X indicates, the differences in total expenditures per student are significantly narrowed when viewed from the standpoint of state general fund support. This is particularly evident at the lower division level where the net state cost at the universities is lower than at the state colleges.

Resident student fees applicable to instructional expense in 1970-71 made up 16 percent of the total at the lower division level at the universities and 12 percent at the state colleges. At the upper division instructional level, the proportion decreased to 11 and 9 percent respectively, while at the graduate instructional level the proportion dropped to 6 and 5 percent of total expenditures. At the community colleges, resident academic students paid 7 percent of total costs and vocational student fees made up 5 percent of the total.

The increases in student fees in 1971-72 have increased the students' share of total cost. The exact amount of this increase cannot be determined accurately at this time, however, the proportion borne by students will probably increase from three to six percentage points depending on the level of instruction. It should be noted that these proportions relate to expenditures by level of instruction and not by level of student. Further studies of expenditures by level of student will be made in the near future.

Table X and the percentages cited above are based on the amount of resident full-time fees applicable to the general operation of the institution. In 1970-71, these fees actually constituted a minority of the total registration fees that students were required to pay. (Universities: 49%, State Colleges: 41%, and Community Colleges: 27%) The remaining fees are dedicated to capital construction or special student services.

From the point of view of the student, all of the required registration fees may be related to the operational cost of the instructional services which are provided. Table XI on the following page provides this perspective of the relationship of student fees to instructional costs.

TABLE XI

TOTAL RESIDENT STUDENT FEES AS A PROPORTION OF
1970-71 INSTRUCTIONALLY-RELATED PER STUDENT EXPENDITURES

	Total Per Student Expenditures*	1970-71 Student Fees	Percent Of Total Expenditures	1971-72 Student Fees	Percent Of 1970-71 Expenditures
A. Lower Division					
Universities	$1324	$432	33%	$495	37%
State Colleges	1200	360	30%	447	37%
Community Colleges					
-Lower Division	868	210	24%	249	29%
-Vocational	1234	210	17%	249	20%
-Average	986	210	21%	249	25%
B. Upper Division					
Universities	1904	432	23%	495	26%
State Colleges	1717	360	21%	447	26%
C. Graduate					
Universities	3682	432	12%	555	15%
State Colleges	3128	360	12%	507	16%

*Excluding Agriculture and Natural Resrouces. Professional and Health Sciences Disciplines (Derived from Table III)

Table XI illustrates that the proportion of total student fees to instructional costs declines as the level of instruction increases as was shown in Table X. The table also includes the increased 1971-72 resident fee levels and compares these fees to the 1970-71 per student instructionally-related costs. Since it is probable that the per student expenditures will change in 1971-72, the percentages should be treated as only approximations of the relationship of current fees to instructional costs.

SUMMARY OF TOTAL 1970-71 PROGRAM EXPENDITURES

Tables XII, XIII, and XIV A through F are included in the final report to illustrate the relationship of instructional expenditures to research, extension and public services and total 1970-71 expenditures by source of fund and by program for each institution and the community college system.

Distribution of Institutional Expenditures by Major Function

In Table XII, the total institutional expenditures for 1970-71 are distributed by major functional category. The categories used are: Regular Instructionally Related; Related to Other Instruction (which includes summer session, ROTC, Medicine, Dentistry and Veterinary Medicine and the net costs of the University Teaching Hospital); Total Instructionally Related; Extension and Public Service; Research; and Auxiliary and Other Expenditures.

The greater responsibilities for research and public service work on the part of the universities is clearly indicated with 44-45 percent of nonauxiliary expense related to these activities. In the state colleges, 89-92 percent of total nonauxiliary expense is attributable to instructionally-related activities. All community college expenditures are treated as related to instruction. The community college figures exclude the administrative expenditures by the State Board Office but include the estimated $1,447,053 appropriated directly to the Teachers' Retirement System on behalf of community college faculty enrolled in that program.

TABLE XII

DISTRIBUTION OF TOTAL INSTITUTIONAL EXPENDITURES BY MAJOR CATEGORY
1970-71

	Regular Instruction Related*	Related to Other Instruction			Total Instr Rel Activities	Extension & Pub Service	Research	Total Exp Excl Auxil & Other	Auxiliary & Other	Grand Total
		Summer Qtr & ROTC	Med. Dent. & Vet Med	Hospital						
University of Washington	$62,015,613 43.1%	$2,072,307 1.4%	$9,028,909 6.8%	$6,724,969 4.7%	$79,841,798 56.0%	$3,173,141 2.2%	$59,715,187 41.8%	$142,730,126 100.0%	$10,496,504	$153,226,630
Washington State University	$26,414,673 50.9%	$ 298,545 .6%	$1,705,527 3.3%	---	$28,418,745 54.8%	$5,417,981 10.5%	$17,982,189 34.7%	$ 51,818,915 100.0%	$ 8,789,538	$ 60,608,453
Central Washington State College	$11,752,840 84.0%	$ 709,441 5.1%	---	---	$12,462,281 89.1%	$ 694,595 5.0%	$ 819,902 5.9%	$ 13,976,778 100.0%	$ 3,441,519	$ 17,418,297
Eastern Washington State College	$10,917,036 87.3%	$ 535,638 4.3%	---	---	$11,452,674 91.6%	$ 316,867 2.5%	$ 737,995 5.9%	$ 12,507,536 100.0%	$ 4,044,858	$ 16,552,394
Western Washington State College	$13,698,091 84.5%	$ 841,501 5.2%	---	---	$14,539,592 89.7%	$ 355,525 2.2%	$ 1,312,308 8.1%	$ 16,207,425 100.0%	$ 4,168,731	$ 20,376,156
Statewide Community College System	$64,065,743 100.0%				$64,065,743 100.0%			$ 62,618,690 100.0%		

*Excluding summer quarter, ROTC, Medicine, Dentistry, and Veterinary Medicine.

Sources of Funding for Instructionally-Related Activities

Table XIII on the following page illustrates the major sources of funding for instructionally-related activities at each four-year institution and the community college system for 1970-71. The total amount distributed between state and local sources is taken from the fifth column of Table XII. The major "local" income sources are student fees and charges, sales and service income and, in the case of the community colleges, federal vocational funds. State funding is in the form of direct operating appropriations plus, for the community colleges, the estimated direct appropriation to the Teachers' Retirement System for the purpose of meeting the state share of retirement program costs of participating community college faculty.

As Table XIII indicates, the degree of state support is quite consistent between the institutions and ranges from 84.4% in the case of Central Washington State College to 86.6% for Western Washington State College.

TABLE XIII

SOURCES OF FUNDING FOR INSTRUCTIONALLY-RELATED ACTIVITIES
1970-71

Institution	State Funding		Local Funding		Total Instr. Related Funding
	Dollars	Percentage of Total Instr. Related	Dollars	Percentage of Total Instr. Related	
University of Washington	$67,418,448	84.4%	$12,423,350	15.6%	$79,841,798
Washington State University	$24,147,646	85.0%	$ 4,271,099	15.0%	$28,418,745
Central Washington State College	$10,543,130	84.6%	$ 1,919,151	15.4%	$12,462,281
Eastern Washington State College	$ 9,907,813	86.5%	$ 1,544,861	13.5%	$11,452,674
Western Washington State College	$12,586,310	86.6%	$ 1,953,282	13.4%	$14,539,592
Statewide Community College System	$54,377,412	84.9%	$ 9,688,331	15.1%	$64,065,743
(Federal Vocational Funding)			($ 2,270,058)	(3.5%)	
(Other Local Funding)			($ 7,418,273)	(11.6%)	

Institutional Expenditures by Program by Function by Fund

Tables XIV A through F provide a detailed reconciliation of expenditures by function, program, and major fund source for each institution and the community colleges. The functions are those used in Table XII and the fund sources include those illustrated in Table XIII plus the Grants and Contracts Fund and Auxiliary and Other sources. The program headings are in terms of the state numeric codes which are defined as follows:

Program 01: Administration and General Expense
Program 03: Student Services
Program 04: Plant Operation and Maintenance
Program 05: Libraries
Program 06: Instruction and Departmental Research
Program 07: Organized Activities Related to Instruction
Program 08: U.W. Teaching Hospital
Program 09: Extension and Public Service
Program 10: Organized Research

In reviewing the following tables, the distribution of program expenditures among the various functions should be noted. The distributions reflect the allocation process used in the study. Following the identification of the fund sources for each program, each source has been related to the various functions. This illustrates the mix of funding applicable to each functional category.

TABLE XIV A

DISTRIBUTION OF EXPENDITURES
University of Washington

Distribution of Programs by Function

Function	Programs 01	03	04	05	06	07*	08*	09	10	Sponsored Programs	Auxiliary & Other	Total
Instruction	5,088,026	3,737,986	6,823,390	4,360,701	41,189,607	815,903						62,015,613
Summer Qtr. & ROTC					2,072,307							2,072,307
Medicine & Dentistry												
Instruction	653,341	207,578	287,908	184,737	7,587,770	107,575						9,028,909
Hospital	359,902						6,365,067					6,724,969
Total	1,013,243	207,578	287,908	184,737	7,587,770	107,575	6,365,067					15,753,878
TOTAL Instr. Related	6,101,269	3,945,564	7,111,298	4,545,438	50,849,684	923,478	6,365,067					79,841,798
Extension & Public Service	247,686		300,290					2,625,165				3,173,141
Research	2,279,761	89,309	1,904,612	314,259	2,154,153				2,301,432	50,671,661		59,715,187
Auxiliary & Other	467,699	230,057									9,798,748	10,496,504
TOTAL	9,096,415	4,264,930	9,316,200	4,859,697	53,003,837	923,478	6,365,067	2,625,165	2,301,432	50,671,661	9,798,748	153,226,630

Distribution of Programs by Fund

Fund	Programs 01	03	04	05	06	07	08	09	10	11	Auxiliary & Other	Total
State General Fund	5,788,424	2,315,988	6,882,666	3,080,163	45,624,442		6,365,067	982,891	1,726,910			72,766,551
General Local Fund	3,307,991	1,948,942	2,433,534	1,779,534	7,379,395	923,478		1,642,274	574,522			19,989,670
Grants & Contracts										50,671,661		50,671,661
Other											9,798,748	9,798,748
TOTAL	9,096,415	4,264,930	9,316,200	4,859,697	53,003,837	923,478	6,365,067	2,625,165	2,301,432	50,671,661	9,798,748	153,226,630

Approximate Distribution of Function by Fund

Fund	Function Instruction	Sum. Qtr. & ROTC	Medicine & Dentistry Instruction	Hospital	Total	Extension & Pub. Ser.	Research	Auxiliary & Other	Total
State General Fund	52,449,506	1,870,464	8,860,018	4,238,460	13,098,478	2,059,905	2,729,274	558,924	72,766,551
General Local Fund	9,566,107	201,843	168,891	2,486,509	2,655,400	1,113,236	6,314,252	138,832	19,989,670
Grants & Contracts							50,671,661		50,671,661
Other								9,798,748	9,798,748
TOTAL	62,015,613	2,072,307	9,028,909	6,724,969	15,753,878	3,173,141	59,715,187	10,496,504	153,226,630

*Total Expenditures, Programs 7 & 8, reflect gross expenditures less associated revenue.

TABLE XIV B

DISTRIBUTION OF EXPENDITURES
Washington State University

Distribution of Programs by Function

Function	Programs 01	03	04	05	06	07	09	10	Sponsored Research	Other Sponsored	Auxiliary & Other	Total
Instruction	1,899,679	1,861,265	3,550,765	2,139,934	16,074,057	888,973						26,414,67
Summer Qtr. & ROTC					298,545							298,54
Vet. Medicine	107,100	32,153	130,188	37,120	1,081,908	317,058						1,705,52
TOTAL Instr. Related	2,006,779	1,893,418	3,680,953	2,177,054	17,454,510	1,206,031						28,418,74
Extension & Public Service	381,352		159,120			52,911	4,824,598					5,417,98
Research	751,184		695,836		593,780	111,037		9,066,210	4,588,837	2,175,305		17,982,18
Auxiliary & Other	402,363	279,773				67,173					8,040,229	8,789,53
TOTAL	3,541,678	2,173,191	4,535,909	2,177,054	18,048,290	1,437,152	4,824,598	9,066,210	4,588,837	2,175,305	8,040,229	60,608,45

Distribution of Programs by Fund

Fund	Programs 01	03	04	05	06	07	09	10	Sponsored Research	Other Sponsored	Auxiliary & Other	Total
State General Fund	2,934,390	1,679,003	3,862,626	1,751,329	15,263,222	966,311	2,751,545	6,301,617				35,510,04
General Local Fund	607,288	494,188	673,283	425,725	2,785,068	470,841	518,659	1,485,549				7,460,601
Grants & Contracts							1,554,394	1,279,044	4,588,837	2,175,305		9,597,580
Other											8,040,229	8,040,229
TOTAL	3,541,678	2,173,191	4,535,909	2,177,054	18,048,290	1,437,152	4,824,598	9,066,210	4,588,837	2,175,305	8,040,229	60,608,453

Approximate Distribution of Function By Fund

Fund	Function Instruction	Summer Qtr. & ROTC	Vet. Medicine	Extension & Pub. Serv.	Research	Auxiliary & Other	Total
State General Fund	22,500,690	253,393	1,393,563	3,253,276	7,508,293	600,828	35,510,043
General Local Fund	3,913,983	45,152	311,964	610,311	2,430,710	148,481	7,460,601
Grants & Contracts				1,554,394	8,043,186		9,597,580
Other						8,040,229	8,040,229
TOTAL	26,414,673	298,545	1,705,527	5,417,981	17,982,189	8,789,538	60,608,453

*Total Expenditures. Programs 7 & 8. reflect gross expenditures less associated revenue.

TABLE XIV C

DISTRIBUTION OF EXPENDITURES
Eastern Washington State College

Distribution of Program by Function

Function	Programs 01	03	04	05	06	07	09	10	Sponsored Programs	Auxiliary & Other	Total
Instruction	755,053	813,043	1,097,042	922,504	7,038,662	290,732					10,917,036
Summer Qtr. & ROTC					535,638						535,638
TOTAL Instr. Related	755,053	813,043	1,097,042	922,504	7,574,300	290,732					11,452,674
Extension & Pub. Service	19,946		1,947				294,974				316,867
Research	131,294		595		80,200			43,968	481,938		737,995
Auxiliary & Other	240,519	79,670								3,724,669	4,044,858
TOTAL	1,146,812	892,713	1,099,584	922,504	7,654,500	290,732	294,974	43,968	481,938	3,724,669	16,552,394

Distribution of Program by Fund

Fund	Programs 01	03	04	05	06	07	09	10	Sponsored Programs	Auxiliary & Other	Total
State General Fund	972,278	770,649	857,127	786,143	6,594,515	256,418		18,457			10,255,587
General Local Fund	174,534	122,064	242,457	136,361	1,059,985	34,314	294,974	25,511			2,090,200
Grants & Contracts									481,938		481,938
Other										3,724,669	3,724,669
TOTAL	1,146,812	892,713	1,099,584	922,504	7,654,500	290,732	294,974	43,968	481,938	3,724,669	16,552,394

Approximate Distribution of Function by Fund

Fund	Functions Instruction	Summer Qtr. & ROTC	Extension & Pub. Serv.	Research	Auxiliary & Other	Total
State General Fund	9,438,109	469,704	44,844	37,417	265,513	10,255,587
General Local Fund	1,478,927	65,934	272,023	218,640	54,676	2,090,200
Grants & Contracts				481,938		481,938
Other					3,724,669	3,724,669
TOTAL	10,917,036	535,638	316,867	737,995	4,044,858	16,552,394

*Total Expenditures, Programs 7 & 8, reflect gross expenditures less associated revenue.

TABLE XIV D

DISTRIBUTION OF EXPENDITURES
Central Washington State College

Distribution of Programs by Function

Function	Programs 01	03	04	05	06	07	09	10	Sponsored Research	Other Sponsored	Auxiliary & Other	Total
Instruction	1,111,702	887,867	1,149,848	1,210,823	7,207,389	185,211						11,752,840
Summer Qtr.					709,441							709,441
TOTAL Instr. Related	1,111,702	887,867	1,149,848	1,210,923	7,916,830	185,211						12,462,281
Extension & Public Service	61,394		18,265				614,936					694,595
Research	24,239		21,567	9,466				67,964	30,705	665,961		819,902
Auxiliary & Other	292,685	127,586									3,021,248	3,441,519
TOTAL	1,490,020	1,015,453	1,189,680	1,220,289	7,916,830	185,211	614,936	67,964	30,705	665,961	3,021,248	17,418,297

Distribution of Programs by Fund

Fund	Programs 01	03	04	05	06	07	09	10	Sponsored Research	Other Sponsored	Auxiliary & Other	Total
State General Fund	1,049,470	828,871	958,622	879,127	7,048,172	185,211						10,949,473
General Local Fund	440,550	186,582	231,058	341,162	868,658		614,936	67,964				2,750,910
Grants & Contracts									30,705	665,961		696,666
Other											3,021,248	3,021,248
TOTAL	1,490,020	1,015,453	1,189,680	1,220,289	7,916,830	185,211	614,936	67,964	30,705	665,961	3,021,248	17,418,297

Approximate Distribution of Function by Fund

Fund	Functions Instruction	Summer Qtr. & ROTC	Extension & Pub. Serv.	Research	Auxiliary & Other	Total
State General Fund	9,920,248	622,882	63,192	25,471		
General Local Fund	1,332,592	86,559	631,403	97,765	317,680	10,949,473
Grants & Contracts				696,666	102,591	2,750,910
Other						696,666
TOTAL	11,752,840	709,441	694,595	819,902	3,021,248	3,021,248
					3,441,519	17,418,297

*Total Expenditures, Programs 7 & 8, reflect gross expenditures less associated revenue.

TABLE XIV E
DISTRIBUTION OF EXPENDITURES
Western Washington State College

Distribution of Programs by Function

Function	Programs 01	03	04	05	06	07	09	10	Sponsored Research	Other Sponsored	Auxiliary & Other	Total
Instruction	1.170.501	1.106.504	1.340.404	1.070.302	8.686.778	323.120						13.698.091
Summer Qtr.					841.501							841.501
TOTAL Instr. Related	1.170.742	1.106.504	1.340.645	1.070.302	9.528.279	323.120						14.539.592
Extension & Public Service	28.934		2.949				323.642					355.525
Research	13.831		12.295	4.032	9.417		39	48.934	241.559	982.683		1.312.308
Auxiliary & Other	310.786	173.179									3.684.766	4.168.731
TOTAL	1.524.052	1.279.683	1.355.648	1.074.334	9.537.696	323.120	323.681	48.934	241.559	982.683	3.684.766	20.376.156

Distribution of Programs by Fund

Fund	Programs 01	03	04	05	06	07	09	10	Sponsored Research	Other Sponsored	Auxiliary & Other	Total
State General Fund	1.101.573	1.064.475	595.509	703.892	9.288.280	323.120	73.751	32.838				13.183.438
General Local Fund	422.479	215.208	760.139	370.442	249.416		249.930	16.096				2.283.710
Grants & Contracts									241.559	982.683		1.224.242
Other											3.684.766	3.684.766
TOTAL	1.524.052	1.279.683	1.355.648	1.074.334	9.537.696	323.120	323.681	48.934	241.559	982.683	3.684.766	20.376.156

Approximate Distribution of Function by Fund

Fund	Functions Instruction	Summer Qtr.	Extension & Pub. Serv.	Research	Auxiliary & Other	Total
State General Fund	11.863.111	723.199	116.914	42.755	437.459	13.183.438
General Local Fund	1.834.980	118.302	238.611	45.311	46.506	2.283.710
Grants & Contracts				1.224.242		1.224.242
Other					3.684.766	3.684.766
TOTAL	13.698.091	841.501	355.525	1.312.308	4.168.731	20.376.156

*Total Expenditures. Programs 7 & 9. reflect gross expenditures less associated revenue.

TABLE XIV F

DISTRIBUTION OF EXPENDITURES
Statewide Community College System

Distribution of Instructional Expenditures* by Program

	Program**					
	01	03	04	05	06	Total
Instructional Expenditures	7,057,743	6,181,845	6,145,210	3,192,803	40,041,089	62,618,690

Distribution of Instructional Expenditures by Fund

Institutional Expenditures

State General Fund	$52,930,359
General Local Fund:	
Federal Vocational Funds	2,270,058
Other Local Funds	7,418,273
Total	$62,618,690

Noninstitutional Expenditures

State General Fund	
Teachers Retirement System	1,447,053
TOTAL	$64,065,743

*Distribution of support programs was made only to instruction, since the community college system does not offer continuing education as a separate program, nor does it maintain a separately budgeted research program.

**Expenditures within auxiliary programs are not available for the Community Colleges.

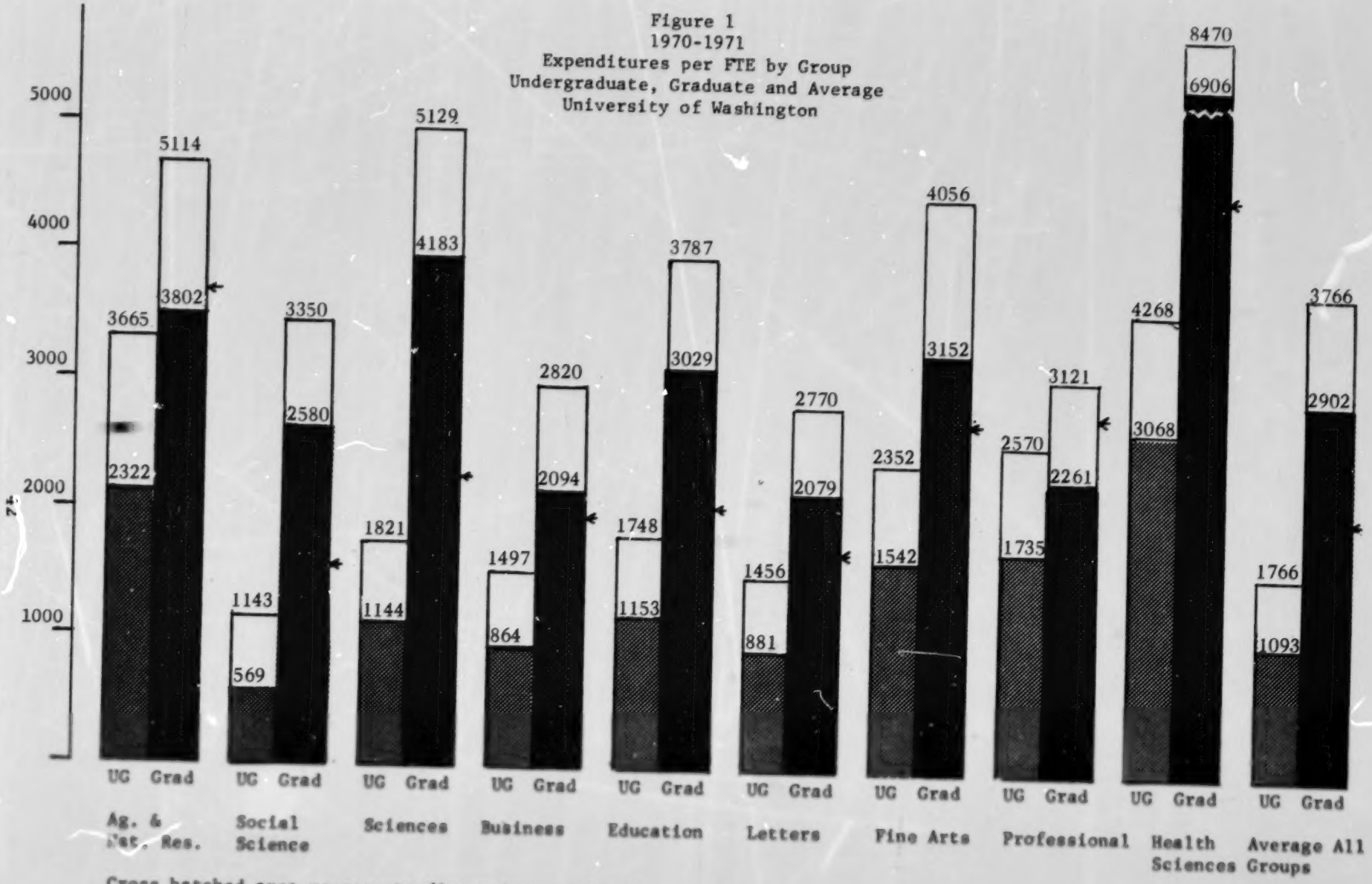
APPENDIX I

COMPARISON OF PER STUDENT EXPENDITURES BY DISCIPLINE--1970-71

Figures one through seven on the following pages illustrate the variation in instructional unit costs by discipline group for each four-year institution and the community college system. (See Appendix IV for definitions of the discipline groups.) Tables A and B have been included to assist the reader in interpreting and analyzing the bar charts. In the case of the four-year schools, the "$ Per FTE Student" line for each institution contains the same dollar amount as is shown on the chart for that institution for the "UG" bar for each discipline group.

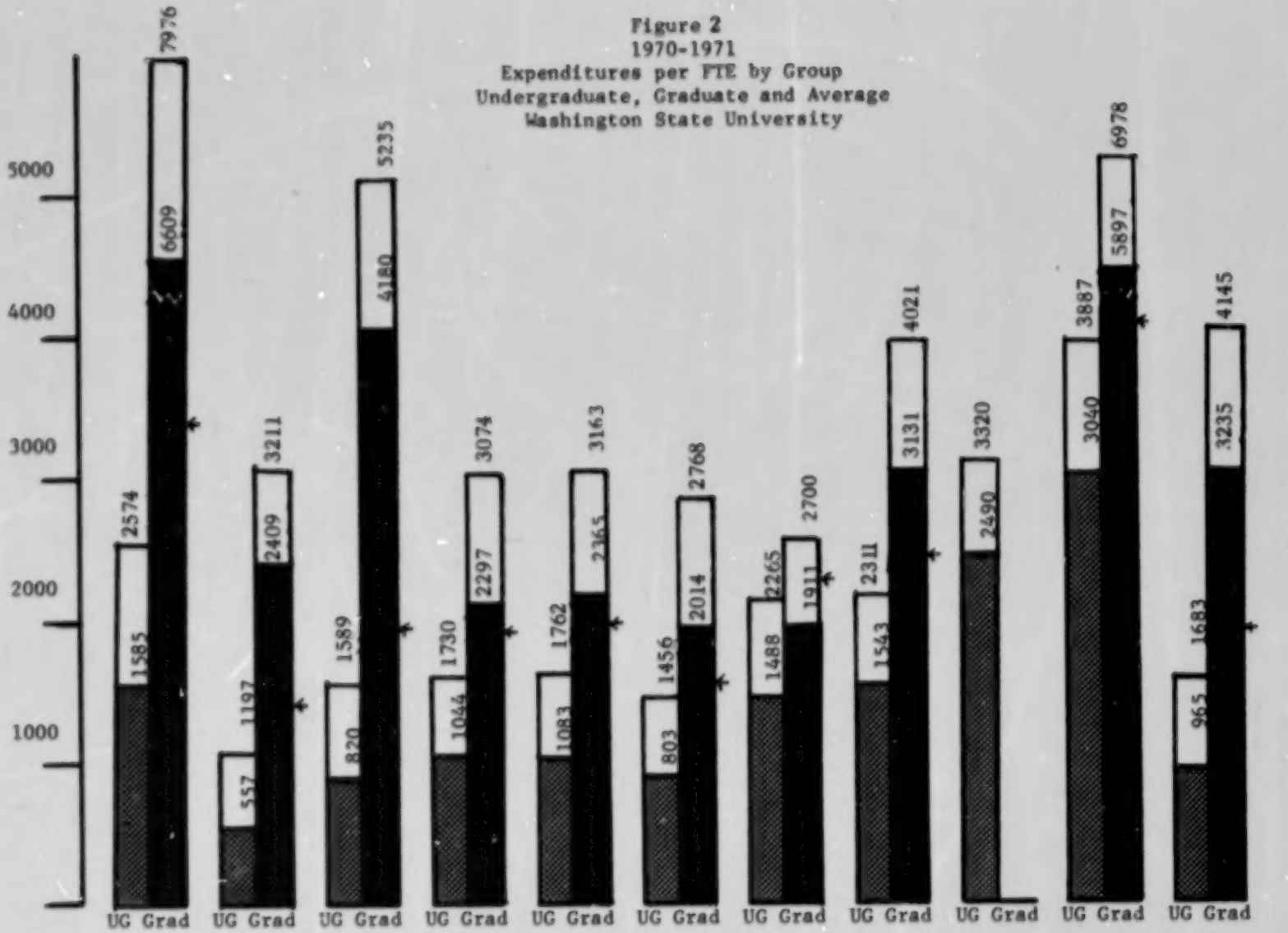
Since the information on the state's retirement contribution for community college faculty enrolled in the Teachers' Retirement System was not available by discipline group, Figures 6 and 7 and Table B exclude these costs. In both tables, the number of FTE students enrolled in courses in each discipline group is indicated along with the percentage relationships to the total. The summary statistical table to which these data relate is Table III.

Figure 1
1970-1971
Expenditures per FTE by Group
Undergraduate, Graduate and Average
University of Washington



Cross hatched area represents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures.
← Arrow indicated weighted average combined instructional expenditures for graduate and undergraduate levels.

Figure 2
1970-1971
Expenditures per FTE by Group
Undergraduate, Graduate and Average
Washington State University



Cross hatched area respresents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures.
←Arrow indicates weighted average combined instructional expenditures for graduate and undergraduate levels.

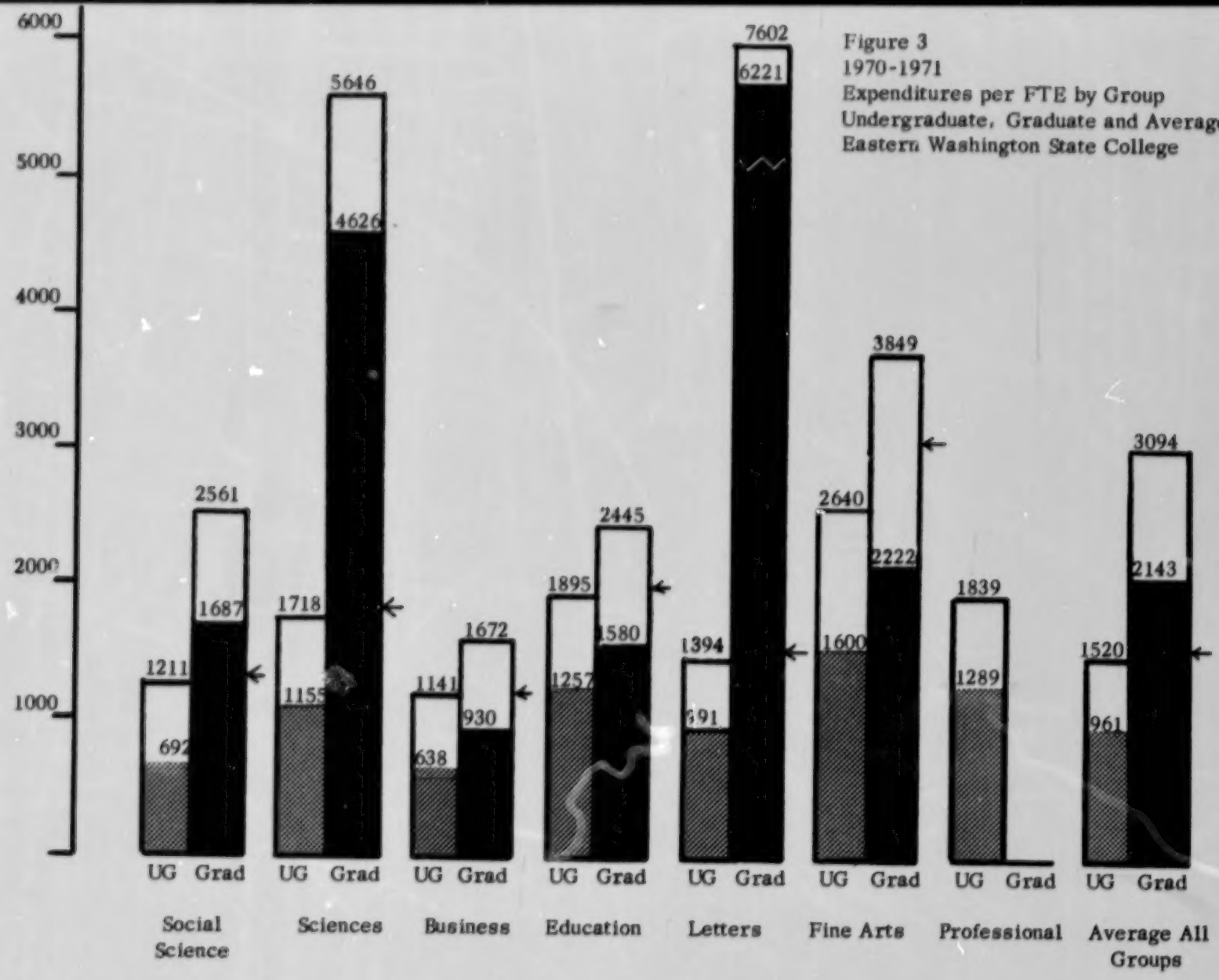
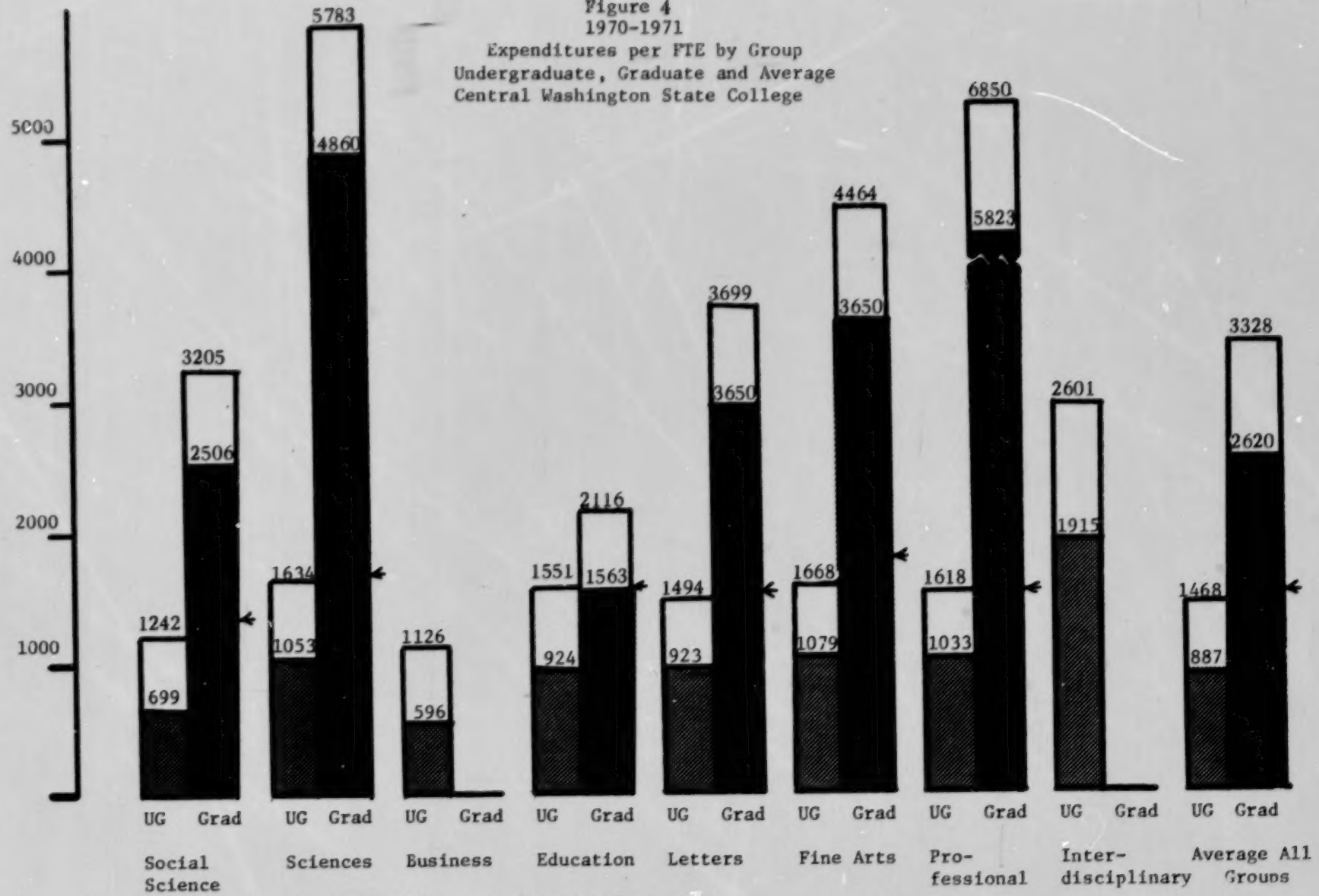


Figure 3
1970-1971
Expenditures per FTE by Group
Undergraduate, Graduate and Average
Eastern Washington State College

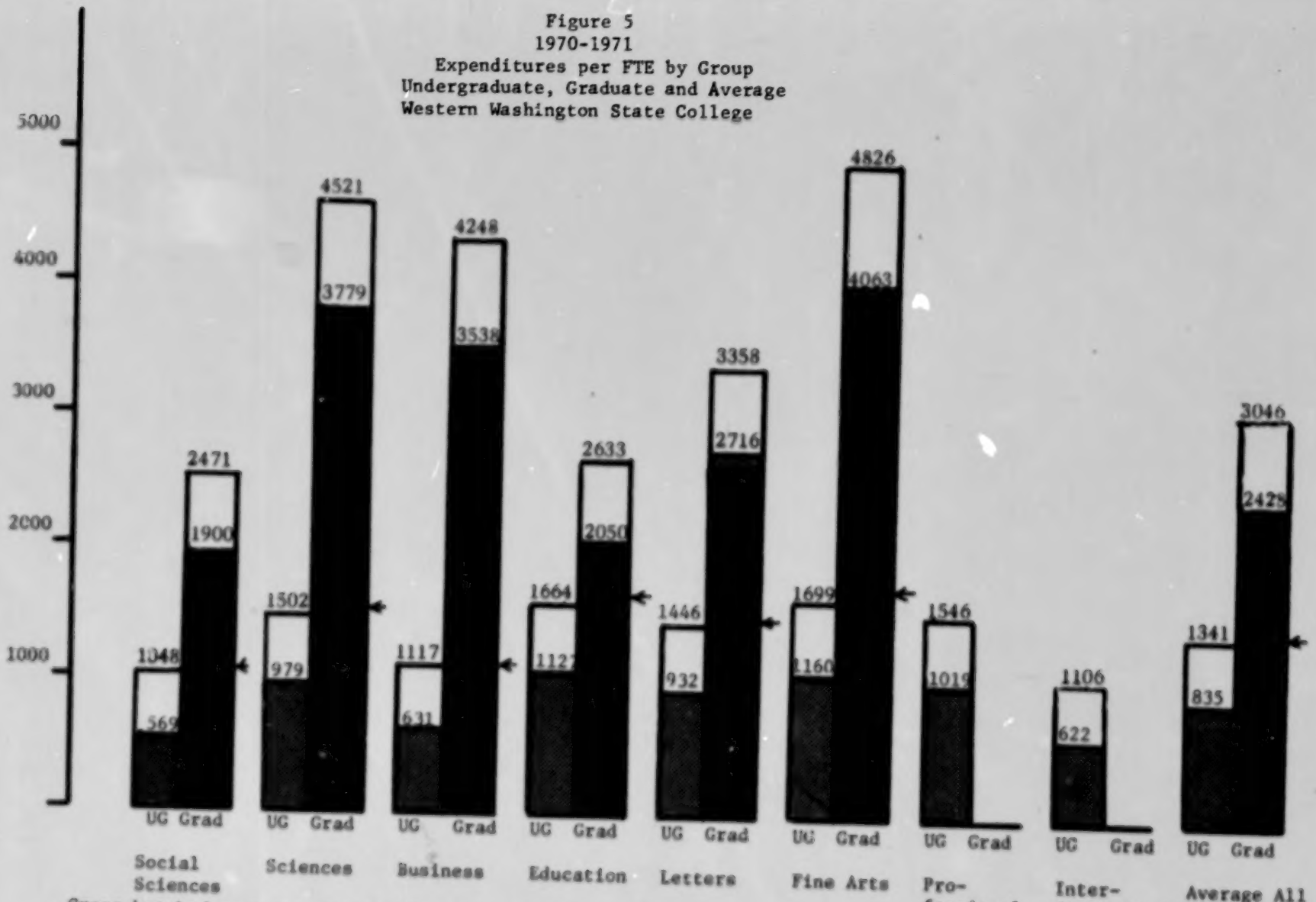
Cross hatched area represents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures.
←Arrow indicates weighted average combined instructional expenditures for graduate and undergraduate levels.

Figure 4
1970-1971
Expenditures per FTE by Group
Undergraduate, Graduate and Average
Central Washington State College



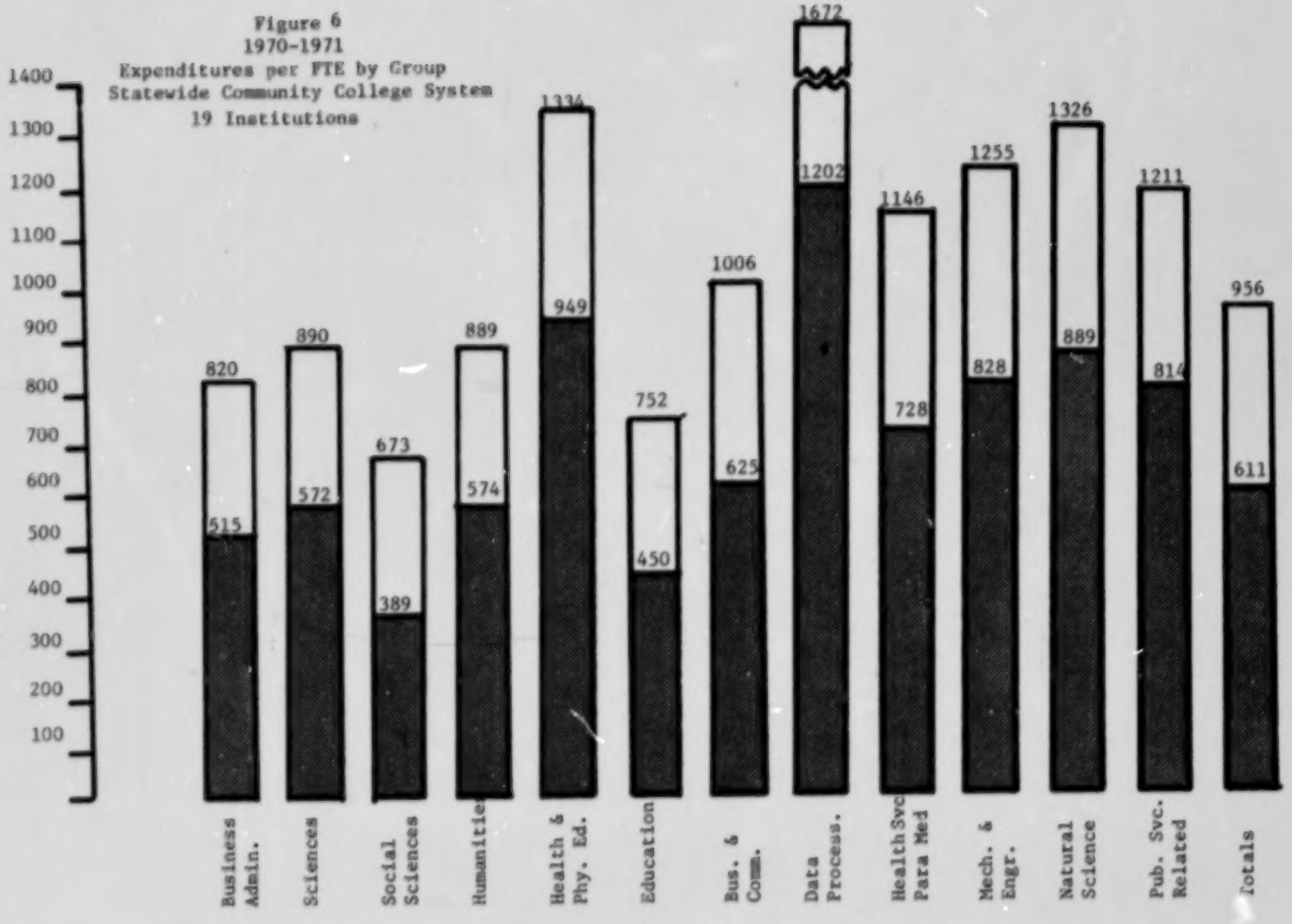
Cross hatched area represents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures.
← Arrow indicates weignted average combined instructional expenditures for graduate and undergraduate levels.

Figure 5
1970-1971
Expenditures per FTE by Group
Undergraduate, Graduate and Average
Western Washington State College



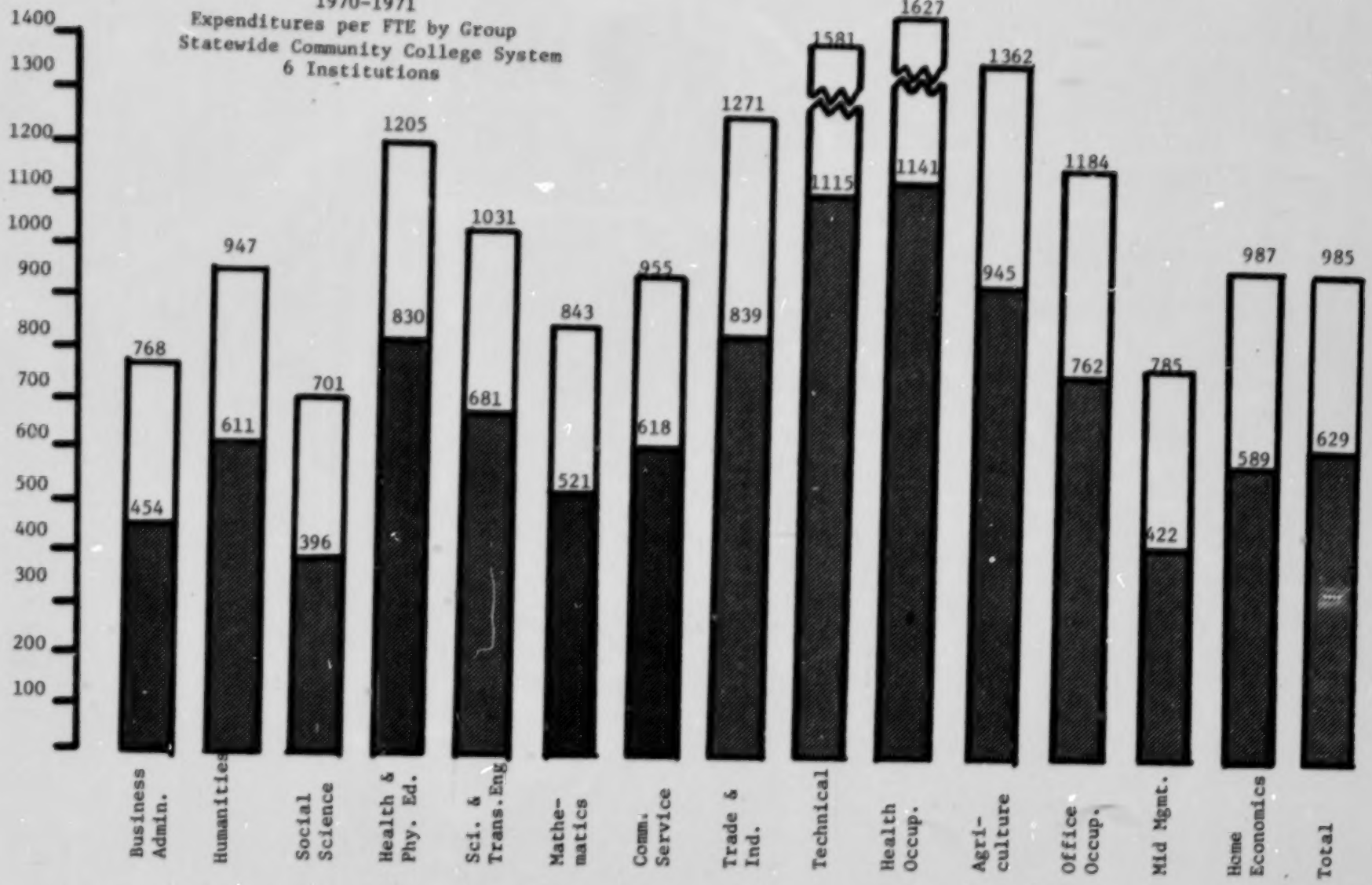
Cross hatched area represents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures
← Arrow indicates weighted average combined instructional expenditures for graduate and undergraduate levels.

Figure 6
1970-1971
Expenditures per FTE by Group
Statewide Community College System
19 Institutions



Cross hatched area represents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures.

Figure 7
1970-1971
Expenditures per FTE by Group
Statewide Community College System
6 Institutions



Cross hatched area represents direct instructional costs.
Total level includes direct instructional costs plus other program expenditures.

APPENDIX I

TABLE A

1970-71

RELATIONSHIP OF GROUP UNDERGRADUATE UNIT COST AND NUMBER OF FTE STUDENTS TO AVERAGE INSTITUTION INFORMATION

Excluding Medicine, Dentistry and Veterinary Medicine

Institution	Group											
	Social Science	Sciences	Business	Education	Humanities	Fine Arts	Interdisciplinary	Total or Average of Comparable Groups*	Agric. Nat. Res.	Professional	Health Sciences	Total or Average All Groups
U.W.												
$ Per FTE Student	1,143	1,821	1,497	1,748	1,456	2,352		1,532	3,665	2,570	4,268	1,766
% of Comparable Average	75	119	98	114	95	154		100	239	168	279	115
FTE Students	7,246	5,636	2,178	1,575	5,931	1,606		24,172	470	3,720	1,171	29,533
% of Comparable Total	30.0	23.3	9.0	6.5	24.6	6.6		100	1.9	15.4	4.8	122
W.S.U.												
$ Per FTE Student	1,197	1,589	1,730	1,762	1,456	2,265	3,320	1,542	2,574	2,311	3,887	1,683
% of Comparable Average	78	103	112	114	94	147	215	100	167	150	252	109
FTE Students	3,047	3,747	1,290	1,303	2,151	476	92	12,106	603	1,169	211	14,089
% of Comparable Total	25.1	30.9	10.7	10.8	17.8	3.9	.8	100	5.0	10.0	1.7	116
C.W.S.C.												
$ Per FTE Student	1,242	1,634	1,126	1,551	1,494	1,668	2,601	1,464		1,618		1,468
% of Comparable Average	85	112	77	106	102	114	178	100		111		100
FTE Students	1,993	1,007	528	2,296	868	808	60	7,560		214		7,774
% of Comparable Total	26.4	13.3	7.0	30.3	11.5	10.7	.8	100		2.8		103
E.W.S.C.												
$ Per FTE Student	1,211	1,718	1,141	1,895	1,394	2,640		1,517		1,839		1,520
% of Comparable Average	80	113	75	125	92	174		100		121		100
FTE Students	2,369	888	703	1,233	1,142	381		6,716		65		6,781
% of Comparable Total	35.2	13.2	10.5	18.4	17.0	5.7		100		1.0		101
W.W.S.C.												
$ Per FTE Student	1,048	1,502	1,117	1,664	1,446	1,699	1,106	1,337		1,546		1,341
% of Comparable Average	78	112	84	124	108	127	83	100		115		100
FTE Students	2,961	1,938	478	1,480	1,419	567	813	9,656		178		9,834
% of Comparable Total	30.6	20.1	5.0	15.3	14.7	5.9	8.4	100		1.8		102

*From Table III, Column 3

APPENDIX I

TABLE B

RELATIONSHIP OF GROUP UNIT COST* AND NUMBER OF FTE STUDENTS TO AVERAGE INSTITUTION INFORMATION--COMMUNITY COLLEGE SYSTEM
1970-71

19 INSTITUTIONS

	Groups						
Academic	Sciences	Social Sciences	Humanities	Business Adm	Education	Health & Phys Ed	Total or Average
$ Per FTE Students	890	673	889	820	1,334	752	833
% of Average	106	81	107	98	160	90	100
FTE Students	7,625	8,467	9,744	1,321	2,194	1,166	30,517
% of Total	25.0	27.8	31.9	4.3	7.2	3.8	100.0
Vocational	Bus & Commerce	Data Processing	Health Svc Paramed	Mech & Engr	Natural Science	Pub Svc Related	Total or Average
$ Per FTE Students	1,007	1,671	1,146	1,255	1,326	1,211	1,186
% of Average	85	141	97	106	112	102	100
FTE Students	5,223	791	2,034	5,566	1,652	957	16,223
% of Total	32.2	4.9	12.5	34.3	10.2	5.9	100.0

6 INSTITUTIONS

Academic	Community Service	Business Adm	Humanities	Social Sciences	Health & Phys Ed	Sci & Trans Engr	Math	Total or Average
$ Per FTE Students	954	768	947	701	1,205	1,031	843	879
% of Average	109	87	108	80	137	117	96	100
FTE Students	938	4,313	3,862	854	1,635	1,542	347	13,491
% of Total	7.0	32.0	28.6	6.3	12.1	11.4	2.6	100.0
Vocational	Trade & Ind	Technical	Health Occup	Agriculture	Office Occup	Mid Mgmt	Home Econ	Total or Average
$ Per FTE Students	1,271	1,581	1,627	1,362	1,184	785	987	1,285
% of Average	99	123	127	106	92	61	77	100
FTE Students	1,055	1,007	719	124	642	593	593	4,733
% of Total	22.3	21.3	15.2	2.6	13.6	12.5	12.5	100.0

*Does not include teachers retirement benefits.

APPENDIX II

MEMBERS OF THE AD HOC COMMITTEE ON UNIT AND PROGRAM COSTS

Mr. Jack Kiley, Legislative Budget Committee Staff

Mr. Bruce Peterson, Office of Program Planning and Fiscal Management

Mr. Denis Curry, Council on Higher Education

Dr. Gilbert Carbone, State Board for Community College Education

Mr. Hilmar Kuebel, Jr., State Board for Community College Education

Mr. James F. Ryan, University of Washington
Representative for the four-year institutions

Mr. James Sharpe, Fort Steilacoom Community College
Representative for the two-year institutions

FIGURE I

EXAMPLE: Reporting 1970-71 Academic Year Departmental Expenditures and Related Data

A. For each department in Program 06-1, exclusive of Summer Session, R.O.T.C. and Dean and Program Offices associated with more than one department*

Department Name: _____ HEGIS Code: (4 digit) _____ Institution: _____

1. Level	2. Fall '70 SCH	3. F.T.E. Faculty	4. Faculty Salaries	5. Faculty Benefits	6. Faculty Sal + Benefits	7. Faculty Man Years	8. Support Man Years	9. Total Man Years	10. Support Sal + Wages	11. Support Benefits	12. Other Support Costs	Total
LD	xx,xxx	xx.xx	$xxx,xxx	$xx,xxx	$ xxx,xxx	xx.xx						
UD	x,xxx	xx.xx	xxx,xxx	xx,xxx	xx,xxx	xx.xx						
500	xxx	x.xx	xx,xxx	x,xxx	xx,xxx	x.xx						
600+	xxx	x.xx	xx,xxx	xxx	xx,xxx	x.xx						
Total	xx,xxx	xx.xx	$xxx,xxx	$xx,xxx	$x,xxx,xxx	xx.xx	xx.xx	xxx.xx	$xxx,xxx	$xx,xxx	$xxx,xxx	$x,xxx,xxx

B. Total 06-1 in above format for all departments listed

C. Summaries for each Program 06-2 department, exclusive of Medicine, Dentistry, and Veterinary Medicine in format outlined in A above

D. Total 06-2 in format outlined in A. above for all departments listed

E. Departmental summaries for Medicine, Dentistry and Veterinary Medicine as in A above in total only.

F. Total Program 06 departmental expenditures and data, as in A above, in total only

Explanation of Column Headings

Column 2. Official Second Week Count for 4 year institutions. End of Term Count for Community Colleges
Column 3. Based on Fall, 1970 experience (See attached Example)
Column 4. Actual Expenditures distributed on basis of Fall '70 experience (See Example) Include Contract Student Teacher Supervision
Column 6. Column 4 plus column 5
Column 7. Actual 1970-71 man years distributed on Fall '70 experience
Column 8. -Column 13. Actual, in total only
Column 12. Distribution of multi-department support costs for community colleges to be based on recommendations of Multi Year Planning subcommittee

* Include in the departmental information the expenses of deans associated only with that department, e.g. law.

CHE: 8/20/71

EXAMPLE: Distribution of Academic Year Faculty Salaries
Based on Fall Term Experience

Department _____

Instructor	FTE	Monthly Salary	100/200		300/400		500		600+		Other*	
			FTE	$	FTE	$	FTE	$	FTE	$	FTE	$
A	1.0	$1.000	.50	500	.25	250	-	-	-	-	.25	250
B	1.0	1,200	.33	400	.33	400	-	-	.33	400	-	-
C	1.0	800	.25	200	.50	400	.10	80	.10	80	.05	40
D	1.0	1,000	-	-	.25	250	.50	500	.25	250	-	-
E	.5	400	.50	400	-	-	-	-	-	-	-	-
	4.5	$4,400	1.58	1,500	1.33	1300	.60	580	.68	730	.30	290
Percent of Monthly Salaries				34.1%		29.5%		13.2%		16.6%		6.6%
Total Salaries- Academic Year		$40,630		X 34.1%		X 29.5%		X 13.2%		X 16.6%		X 6.6%
Distribution			1.58	*13,855	1.33	$11,986	.60	$5,363	.68	6,745	.30	2,681

*"Other" is subsequently allocated to the various levels based on proportional F.T.E. distribution.

APPENDIX III A

FIGURE III

EXAMPLE: Summary of 1970-71 Expenditures - Program 06

Unit	1. Man Years	2. Salaries	3. Staff Benefits	4. Other Expenditures	5. Total Expenditures	6. Amount Recharged	7. Overhead Earned	8. Associated Revenue	9. Net	10. Sq. Ft. of Space
Instructional Departments (From Figure I. Item F)										
Summer Session										
R.O.T.C.										
Dean and Program Offices (Those not incl. in Figure I) (List Each Separately)										
Total Program 06										

Explanation of Column Headings

Column 1.	Actual 1970-71 Man Years
Column 2.	Actual 1970-71 Salaries and Wages (Include Student Teacher Supervision Payments even though expended under object 02 or 03)
Column 3.	Actual object 07 expenditures
Column 4.	Actual expenditures, all other objects
Column 5.	Sum of Column 2, 3, and 4.
Column 6.	Amounts charged other programs for services rendered
Column 7.	Amount of contract overhead earned based on where the overhead expense was claimed (Detail as available)
Column 8.	Revenue directly associated with program activities (Exclusive of Registration Fees related to the academic year)
Column 9.	Column 5 minus Columns 6, 7, and 8.
Column 10.	Square feet of space associated with the Program, Total Program only.

CHE: 8/20/71

FIGURE IV

EXAMPLE: Summary of 1970-71 Expenditures - All Programs

Program	1. Man Years	2. Salaries	3. Staff Benefits	4. Other Expenditures	5. Total Expenditures	6. Amount Recharged	7. Overhead Earned	8. Associated Revenue	9. Net	10. Sq. Ft. of Space
01										
03										
↓										
16										
Total										

Notes

- Include Program 06 Expenditures from Figure III
- Expenditures of all Programs, including auxillary enterprises, are to be included in this summary
- For other Sponsored Programs, estimate the distribution of expenditures related to Instruction, Research and Public Service activities on an attachment sheet
- See Figure III for an explanation of Column Headings

CHE: 8/20/71

APPENDIX IV

DISCIPLINE GROUPINGS

I. Four Year Colleges and Universities

A. Agriculture and Natural Resources (HEGIS Code 0100)
Contains Agriculture, Fisheries, Forestry, etc.

B. Social Science (HEGIS Codes 0300, 2000, 2100, 2200)
Contains Area Studies, Psychology, Public Affairs, History, Political Science, Sociology, Geography, etc.

C. Sciences (HEGIS Codes 0400, 0700, 1700, 1900)
Contains Biology, Botany, Computer Science, Mathematics, Physics, Chemistry, etc.

D. Business Management (HEGIS Code 0500)
Contains Accounting, Business Administration, Management, etc.

E. Education (HEGIS Code 0800)
Contains Elementary Education, Secondary Education, Special Education, etc.

F. Letters (HEGIS Codes 0600, 1100, 1500)
Contains Journalism, Communications, Foreign Languages, English, Speech, Literature, etc.

G. Fine Arts (HEGIS Code 1000)
Contains Art, Music, Drama, etc.

H. Professional (HEGIS Codes 0200, 0900, 1400, 1600)
Contains Architecture, Engineering, Home Economics, Law, Library Science

I. Interdisciplinary (HEGIS Code 4900)

J. Health Sciences (HEGIS Code 1200)
Includes Nursing, Pharmacy, Occupational and Physical Therapy, etc. (Medicine, Dentistry, and Veterinary Medicine treated separately)

APPENDIX IV A

II. Community Colleges (19 institutions*)

--Academic--

A. Business Administration (Same as four-year institutions)

B. Sciences (HEGIS Codes 0100, 0200, 0400, 0700, 0900, 1200, 1300, 1600, 1700, 1900)
Contains Agriculture, Architecture, Biological Sciences, Computer Sciences, Engineering, Health Professions, Home Economics, Library Sciences, Mathematics, Physical Sciences

C. Social Sciences (Same as four-year institutions)

D. Humanities (HEGIS Codes 0600, 1000, 1500)
Contains Journalism, Communications, Art, Music, Drama, Foreign Languages, English, Literature

E. Health and Physical Education
Contains all physical education courses for credit

F. Education (Same as four-year institutions excluding Health and Physical Education)

--Vocational--

G. Business and Commerce Technologies (HEGIS Code 5000)
Contains technologies in the following: Business, Banking, Accounting, Marketing, Secretarial, Personal Service, etc.

H. Data Processing Technologies (HEGIS Code 5100)
Contains technologies in the following: Key Punch Operation, Computer Programer, Computer Operator, etc.

I. Health Services and Paramedical Technologies (HEGIS Code 5200)
Contains technologies in the following: Dental Assistants, Laboratory Assistants, Nursing, etc.

J. Mechanical and Engineering Technologies (HEGIS Code 5300)
Contains technologies in the following: Mechanical and Engineering, Aviation, Architectural Drafting, Automotive, Diesel, Welding, Electronics, etc.

K. Natural Science Technologies (HEGIS Code 5400)
Contains technologies in the following: Agriculture, Forestry, Food Service, Home Economics, etc.

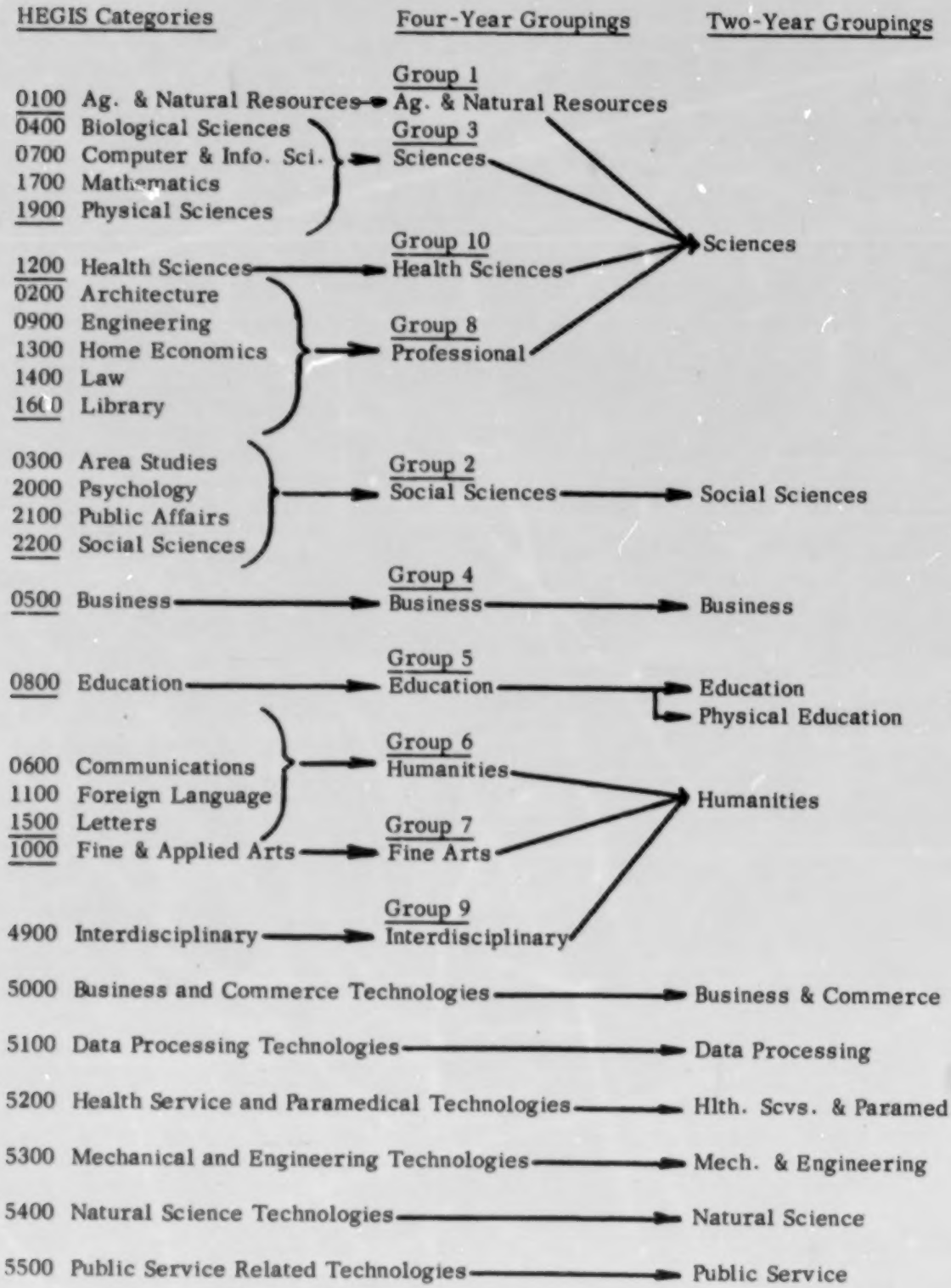
*Six institutions had not adopted the revised classification system by fall, 1970. These institutions reported data on a different basis for the 1970-1971 academic year. All institutions will use the revised classification system as of fall, 1971.

APPENDIX IV B

L. Public Service Related Technologies (HEGIS Code 5500)
Contains technologies in the following: Education, Library Assistant, Law Enforcement, Recreation and Social Work, etc.

APPENDIX IV C

MAPPING OF HEGIS CATEGORIES TO FOUR-YEAR AND TWO-YEAR UNIT COST GROUPINGS



APPENDIX V

PROCEDURES FOR COLLECTING, DISTRIBUTING AND ALLOCATING 1970-71 DATA FOR UNIT COST CALCULATIONS

Four-Year Colleges and Universities

I. Instruction and Departmental Research (Program 06)

A. Costs directly attributable to Summer Session were excluded.

B. Instructional salaries, benefits and supporting costs:

1. Faculty and subfaculty FTE, salaries and benefits were distributed by level of instruction using the fall, 1970 Load/Cost faculty workload information to develop the proportional distribution of each factor. These proportions were then applied to the actual experience for the 1970-71 academic year. Faculty costs and FTE which could not be related directly to a course level, e.g., department chairmen, were distributed on the overall proportional basis of that FTE which could be related to course level, an example of the approach is shown on Figure II, which is attached.

2. The faculty and subfaculty FTE, salaries, related staff benefits, and man years were collected by course level for each department (other than medicine, dentistry and veterinary medicine), coded to relate to the taxonomy prescribed by the U.S. Office of Education in its Higher Education General Information Survey (HEGIS). Supporting staff man years, salaries and wages, benefits and other supporting costs were collected for each department in total as were faculty costs for medicine, dentistry and veterinary medicine. See Figure I for an example of the form used in collecting the departmental data.

3. Three alternatives were reviewed in distributing supporting costs by level of instruction: Proportional distribution of faculty FTE; proportional distribution of faculty salaries and benefits; and estimated supplies and equipment by student credit hour with the remainder by proportional faculty FTE distribution. The first alternative was used in making these distributions. Medicine, Dentistry and Veterinary Medicine costs were not allocated to instructional levels.

4. Following a review by academic administrators, the departmental data was aggregated into ten discipline groups. See page 60 for a listing of these groups, their composition and relationship to those used by the community colleges.

C. Other Program 06 Expenditures:

1. Collection: These instruction and departmental research expenditures which could not be directly related to departments, e.g., Graduate School, Dean of Arts and Sciences, plus summer session and ROTC costs were collected from each institution along with the amounts charged to other programs for services rendered overhead earned, associated revenue and, where possible, associated assignable square feet of space. See Figure III for an example of the form employed in collecting these data. Overhead earned was in all cases apportioned upon the basis of there it was claimed and allowed under Circular A-21. The collection of this information allowed a reconciliation with total Program 06 expenditures.

2. Processing: Other Program 06 expenditures reported on Figure III (less Summer Session), less overhead earned, were distributed to the discipline groups based on surveyed information as to the group(s) or level(s) to which

the expenditures applied, e.g., Graduate School to all groups except interdisciplinary and at the graduate instructional levels. In those cases where the distribution was general or involved more than one group or level, the distribution was based on the applicable proportional relationship of FTE faculty.

Overhead earned by instructional departments was allocated to research based on institutional information at the discipline group and level to which those credits related. In cases where more than one group or level involved the allocation was based on the proportional relationship of FTE faculty which was applicable.

II. Other Program Expenditures

The techniques for allocating 1970-71 expenditures for each of the other program categories are as follows:

A. Program 01--Administration and General Expense: Expenditures equal to the amount of overhead earned were allocated to research. The remaining expenditures or Program 01 less recharges were allocated to all programs except research and working capital based upon expenditure levels and within Program 06, by expenditures by group by level.

B. Program 04--Plant Operation and Maintenance: Expenditures equal to the amount of overhead earned were allocated to research. The remaining expenditures, plus the allocated portion of Program 01 expenditures less recharges was allocated to all other programs except teaching hospital, research, working capital and housing and dining based upon the relationship of the estimated square feet applicable to each program. That portion of Program 04 costs directly related to Program 06 was distributed within Program 06 on the same basis as used in the 1969-70 Cost Study (combined man-years and FTE students).

C. Program 03--Student Services: Expenditures equal to the amount of overhead earned were allocated to research. Recharges were deducted and the remaining expenditures plus the share of Programs 01 and 04 were allocated as follows: Those expenditures of Program 03 related to housing offices and dormitory counselor and assistant counselor expense were allocated to Housing and Dining. The remaining expenditures were allocated to Program 06 on the basis of FTE students by group, by level.

D. Program 05--Libraries: Expenditures equal to the amount of overhead earned were allocated to research and recharges were deducted. The remaining expenditures plus the share of Programs 01 and 04 were allocated to Program 06 on the basis of FTE students by group, by level. Each four-year institution was contacted to determine if they wished to make a preliminary allocation based upon branch library operations to the various groupings of discipline specialties. The University of Washington exercised this option.

E. Programs 07 and 08--Organized Activities Related to Instruction and Teaching Hospital: The net costs of these programs, after allocations of overhead credits and deduction of recharges and related revenue, were allocated to the appropriate groups and levels based on institutional advice. In cases where more than one group or level was involved or where no specific direction was given by the institution, the allocation was based on student credit hours.

F. Program 12--Other Sponsored Programs: Each institution was asked to indicate the portion of this program which directly related to instruction in the regular academic year. After total direct costs were determined, these amounts were added to the totals for the respective groups and levels based on the intent of the grants.

III. Funding.

Fund source information for each program was collected and the source of funds was allocated in the same proportions as program expenditures resulting in a total reconciliation of expenditures by source of funds. See Tables XV, A through F.

Community Colleges

I. Direct Instructional Salaries and Benefits

A. Salaries and direct staff benefits of instructional personnel were allocated to courses through matching the direct instructional costs as reflected in the faculty salaries reported in the MIS 6 file, with each of the courses (sections) taught Fall quarter, 1970, as reported in the MIS 2 file detailing each section taught in the state community college system during any given quarter. The matching of the two files is described in detail below.

1. Determination of Course Offerings.

The MIS 2 file was listed by college, by instructor ID, by individual section. The listing reflected data on the MIS 2 file including instructional effort code, enrollments, number of credits or contact hours by lecture, lab and clinical. FTE students were then calculated for each course based on the standard formula of 15 credit hours per FTE or the conversion formula for courses not structured in terms of academic credits, i.e. lecture hours at 1 to 1, laboratory hours at 2 to 1 and clinical hours at 3 to 1. Positions and courses wholly funded by direct federal grants were excluded.

2. Direct Instructional Salaries.

A listing of the MIS 6 Personnel file was then prepared by college and instructor ID showing annual salaries for full time and fall quarter salaries for part time faculty.

3. Matching of Direct Instructional Costs with Course Offerings.

Several teams of staff members appointed by the State Board for Community College Education then met with the instructional dean and business manager of each college. The course offerings, the instructors' salaries and assignments as reflected in the MIS 2 file were then verified. Each instructor's salary for fall quarter was then distributed over the courses he taught based on the dean's evaluation of the instructor's workload.

4. Merging of Course and Cost Data.

The individual direct instructional cost assigned to each course was then added to the data included on the MIS 2 file. This then provided the basic file for preparation of the direct instructional cost data included in the 1970-71 study.

5. Determination of Annualized Direct Instructional Cost.

The annual direct instructional cost for each of the categories reflected in the cost study was determined by obtaining from each college the portion of their program 060 expenditures attributable to direct instructional cost and pro-rating this amount in the same relationship as the fall quarter data as determined in steps one through four above.

6. State Teachers' Retirement System Contributions.

Estimated state contributions to community college faculty participating in the State Teachers' Retirement System were calculated in conjunction with the State Board for Community College Education. The annual salaries of those faculty participating was estimated on the basis of a one month sample. The applicable

state contribution rate for 1970-71 (7.5%) was applied and the resulting estimated state contribution was allocated on the basis of total faculty salaries paid in the academic and vocational areas.

II. Instructional Supporting Costs.

Instructional supporting costs were allocated to discipline groups by each community college district on the basis of accounting records, individually selected distribution techniques and institutional judgments. The attached forms illustrate the procedures used in the calculation of total supporting cost and the distributional format.

III. Other Program Costs.

For Programs 01, 03 and 05, the same allocation methods as used by the four-year institutions were used. In the case of Program 04, Plant Operation and Maintenance, the costs were allocated on the basis of student station hours in the discipline categories weighted by the academic-vocational space relationship which had been experienced for the period.

_____
College

FORM 1

TOTAL 1970-71 PROGRAM 060 COSTS

1. Total program 060 expenditures for 1970-71 per A-23 Report*	
2. Less summer quarter instructional salaries	
3. Less fall, winter and spring direct instruction salaries	
4. Less staff benefit costs related:	
A. Summer quarter salaries	
B. F-W-S Direct instruction salaries	
5. Total Line 1 less lines 2, 3 and 4	
6. Supporting staff and other salary costs in program 060	
7. Operating costs (exclusive of equipment)	
8. Equipment costs	
9. Staff benefit costs applicable to supporting and other staff	
10. Total lines 6, 7, 8 and 9 (must equal line 5 above)	

* To determine total for 1970-71 expenditures use the following procedure:

A. Total program 060 costs for funds 149 and 001 per final 1969-71 A-23 report	
B. Less: Program 060 costs for funds 149 and 001 per 6/30/70 A-23 report	
C. Line A less line B equals 1970-71 actual 060 expenditures	

HJ:kj
9/29/71

_____ College

Following schools please use Form 2A: Edmonds, Shoreline, Highline, Green River, Yakima Valley, Columbia Basin

FORM 2

DISTRIBUTION OF 1970-71 PROGRAM 060 COSTS

FOR SUPPORTING STAFF OPERATIONS AND STAFF BENEFITS

	Support and Other Staff	Operations Costs (Exclusive of Equipment)	Equipment	Staff Benefits	Total*
A. Business Admin.					
B. Sciences					
C. Social Sciences					
D. Humanities					
E. Health & Phy. Ed					
F. Bus. & Commerce					
G. Data Proc. Tech.					
H. Health Serv. & Paramedical					
I. Mech. & Eng. Tech.					
J. Nat. Science Tech.					
K. Pub. Serv. Tech.					
L. Education					
TOTAL					*

* Must equal line 10 total from Form 1

HJ:kj
9/29/71

For use by the following schools:
Edmonds, Shoreline, Highline, Green River, Yakima Valley, Columbia Basin

_____ College

FORM 2A

DISTRIBUTION OF 1970-71 PROGRAM 060 COSTS

FOR SUPPORTING STAFF OPERATIONS AND STAFF BENEFITS

	Support and Other Staff	Operations Costs (Exclusive of Equipment)	Equipment	Staff Benefits	Total*
A. Business Admin.					
B. Humanities					
C. Social Sciences					
D. Health & Phy. Ed.					
E. Science & Trans. Eng.					
F. Mathematics					
G. Trade & Indus.					
H. Technical					
I. Health Occup.					
J. Agriculture					
K. Office Occup.					
L. Mid-Mgt.					
M. Home Ec.					
N. OTHER					
TOTALS					

* Must equal line 10 total from Form 1